

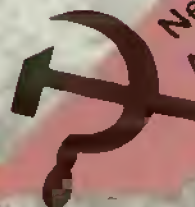
# AGRICULTURAL OUTLOOK

December 1989

• Economic Research Service  
United States Department of Agriculture



New U.S.-Soviet Grain  
Agreement in the Offing  
See page 24



# AGRICULTURAL OUTLOOK

December 1989/AO-159

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## In Brief. . . News of Chilean Fruit, Food Price Outlook, Europe 1992

**The U.S. and USSR** are scheduled to begin discussions this month on a new long-term agricultural trade agreement. With stocks of most U.S. grains down, markets are extremely sensitive to speculation about Soviet purchases. For the USSR, the discussions come at a politically delicate time, as General Secretary Mikhail Gorbachev attempts to reform Soviet agriculture amid a move toward a more democratic form of government.

While the success of the reforms remains to be seen, they likely will not seriously affect the total amount of grain the USSR needs to purchase on international markets for the next several years.

Soviet purchases of U.S. corn in October came to 8 million tons, the largest monthly total on record for a single-country purchase from the U.S. This has helped cushion the usual postharvest drop in corn prices. In contrast to the corn trade, a good Soviet wheat crop, tight world wheat supplies, and opposition from within the USSR could hold Soviet wheat imports in 1989/90 to the lowest in a decade.

At last April's GATT midterm review, participating nations (including the EC) agreed to develop international rules for resolving trade disputes over food safety. But there are indications that the food safety and plant and animal health standards coming out of the Europe 1992 unity movement will differ from GATT-recognized standards. This may distort world trade patterns and could cut U.S. agricultural exports.

U.S. per capita consumption of all meats this year likely has met or exceeded last year's record. An increase in chicken and turkey consumption is offsetting a drop in beef and veal consumption. On the production side, 1989 may be the trough of the cattle inventory cycle that began in 1980. Herd expansion will hold down increases in beef supplies in 1989/90, but boost supplies in later



years. Poultry, milk, and egg production should expand in 1990.

U.S. retail food prices for the year are up nearly 6 percent from last year, the largest rise since 1981. Most of the increase occurred in the first half, partly reflecting adjustments to the 1988 drought. Food prices have helped pull up the general inflation rate, which may reach 5 percent. In 1990, normal crop production and slower growth in consumers' disposable incomes will mean slower increases in food prices.

While the cyanide grape scare last spring disrupted the Chilean fruit industry, it does not appear to have permanently cut Chile's share of the U.S. market. Within a week after grape sales were halted in March, the fruit was declared safe and sales began to rebound. Total Chilean grape sales for the marketing year were down only 5.4 percent from a year earlier.

Over the next 5 to 8 years, real GNP in the U.S. likely will grow around its 30-year average of 2.8 percent a year, and the inflation rate will tend to be below

the average for the last decade. Interest rates probably will drop slightly, and the value of the dollar will decline. This would cut the U.S. trade deficit and boost exports. Agriculture would benefit under this longer term outlook, with agricultural exports likely to go up while lower interest rates help keep farmers' costs down.

**Global government intervention in oilseeds** is substantially lower than in most other commodities. As a result, phasing down worldwide government support and protection of agriculture in line with recent GATT free-trade proposals would have a smaller impact on oilseed markets than on most other commodity markets.

According to recent research, world trade in soybeans would increase slightly with trade liberalization, as certain high-cost producing countries, mostly in the EC, reduced output and raised demand. A small gain in U.S. soybean production would put downward pressure on international prices. U.S. production would rise because farmers would convert some grain acreage; removing target prices for feed grains would make growing soybeans more attractive.

Because of the likely decline in EC production, prices and global volume traded probably would climb for vegetable oils and high-oil-content oilseeds, such as sunflowerseed and rapeseed. Increased exports would come from the U.S., Argentina, and Canada, as well as from the major palm oil producers, Malaysia and Indonesia.

In the U.S., lower soybean prices would reduce producers' gross receipts. But, because per bushel costs probably would fall with the greater acreage, net incomes for soybean growers could go up. In contrast, if existing support programs were phased out, higher cost peanut growers probably would stop production, unless the government made support payments that did not distort trade.



## Agricultural Economy

### A Look Back...and Ahead

Looking back a decade helps clarify thinking about where U.S. agriculture is headed in the 1990's. In late 1979, the pages of *Agricultural Outlook* portrayed an agricultural economy at the peak of a remarkable expansion. Farmland values jumped 16 percent nationwide in 1979; values in many states rose more than 20 percent.

Exports were still growing rapidly and export prices were strong. During the 1970's, U.S. agricultural exports grew in value by more than 170 percent after adjustment for inflation. U.S. wheat export prices went from \$1.50 a bushel in 1970 to \$4.43 by 1980.

But the late 1979 outlook was tempered by forecasts of a U.S. recession. Real personal income was beginning to decline, and *AO* reported that "...the consumer spending binge appears to be over." Moreover, OPEC pushed the world price of oil from \$18 a barrel to \$30 in November 1979. Net farm income was forecast to decline in 1980, and land values were not expected to rise as much as they had.

In the late 1970's, many analysts believed that inflation was the major problem facing the economy; consumer prices rose more than 11 percent in 1979 and more than 13 percent in 1980. But food prices were not leading the general

inflation. *AO* said that food-price inflation was likely to slow to 8 percent in 1980, down from 11 percent in 1979. Now, USDA expects food prices to rise 3-5 percent in 1990.

Even with a recession looming at the end of 1979, *AO* reported that policymakers were concerned about whether the world would produce enough food. "Despite the outlook for relatively slow growth in world food consumption, the world agricultural sector will have to operate close to capacity through the early 1980's and at capacity for most of the decade," wrote the USDA Director of Economics, Policy Analysis, and Budget in the December 1979 issue. This reflected the conventional wisdom of the time.

### Money Tightened, Soviets Faced Embargo

In the fall of 1979, the Federal Reserve Board changed its operating procedures; it began to focus on limiting money growth to a fixed target to control inflation, and stopped its earlier policy of targeting interest rates.

Subsequently, commercial banks' prime interest rate went from about 12.7 percent in 1979 to nearly 19 percent in 1981. Inflation began to subside after 1980, so real interest rates were setting record highs. This increased farmers' costs of production.

On the trade front, President Carter announced a partial embargo on agricultural trade with the USSR in January 1980. The embargo was in response to Soviet intervention in Afghanistan. Grain sales covered by the long-term trade agreement were exempt, and USDA protected farmers' incomes by buying grain that otherwise would have been sold to the USSR. The January/February 1980 issue of *AO* reported on the embargo, and detailed the USDA actions.

USDA and university research have shown that the embargo had a relatively small effect on U.S. exports. But growing worldwide agricultural production, a global recession, a higher dollar, steeply rising real interest rates, and burdensome farm debts combined to push U.S. agriculture into its most severe financial crisis since the Great Depression.

The combination of world events knocked the wind out of U.S. farmers'

expectations of future profits. Farmland values plummeted. During the 1980's, all of the real farmland value gains made in the 1970's were erased.

As the global economy contracted, world agricultural trade and U.S. agricultural exports took a nosedive. In inflation-adjusted terms, exports peaked in fiscal 1980 at about \$40.5 billion. When they bottomed out in 1986, they stood more than 50 percent below that peak.

By fiscal 1989, U.S. agricultural exports had recovered somewhat, but they were still down by nearly 35 percent from the peak. This year, nearly one-fifth of U.S. agricultural production was sold abroad.

### Outlook Now Brighter For World Grain Supplies

While the 1970's were marked by concerns about the adequacy of global food production growth, the surpluses of the 1980's highlighted farm financial problems. Those concerned with the adequacy of food supplies underestimated how much and how quickly the world's farmers could respond to higher prices.

During the 1970's, global wheat production rose by more than 41 percent to 443 million metric tons. Rice output swelled by nearly 27 percent, and coarse grain production climbed about 29 percent.

Even with prices falling during the first half of the 1980's, world grain production went up nearly 15 percent. Now, USDA research suggests a more balanced view on world food prospects. Despite the weather problems of the past 2 years, growth in world production seems likely at least to maintain current average per capita consumption for the rest of this century (see the special article in the May 1989 issue of *AO*).

In the first quarter of the next century, however, sustaining such growth may become more difficult, particularly if adverse climatic change occurs or environmental problems become more widespread.

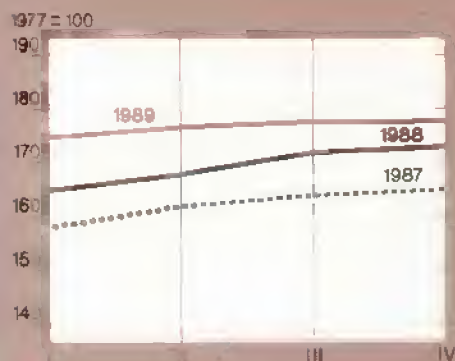
### General Economic Outlook More Solid as Well

In late 1979, the economy was on the brink of a sharp recession. Now, this month likely marks the seventh birthday of the second-longest economic recovery

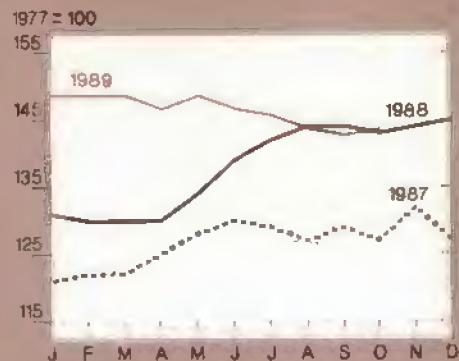


# Prime Indicators of the U.S. Agricultural Economy

Index of prices paid by farmers<sup>1</sup>



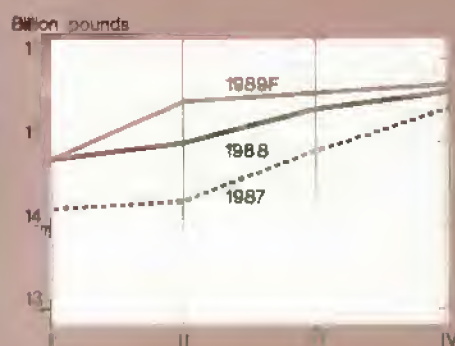
Index of prices received by farmers<sup>1</sup>



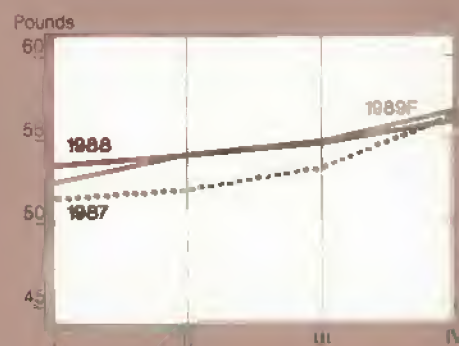
Ratio of prices received to prices paid



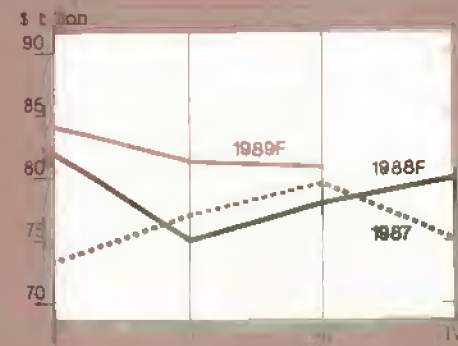
Red meat & poultry<sup>2</sup> production



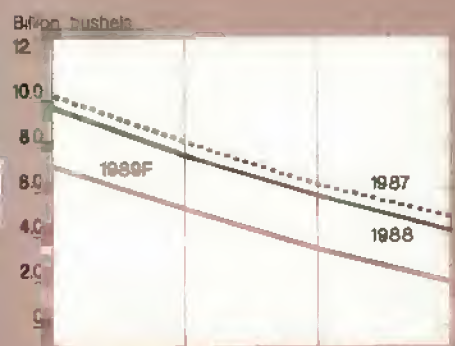
Red meat & poultry consumption, per capita<sup>2,3</sup>



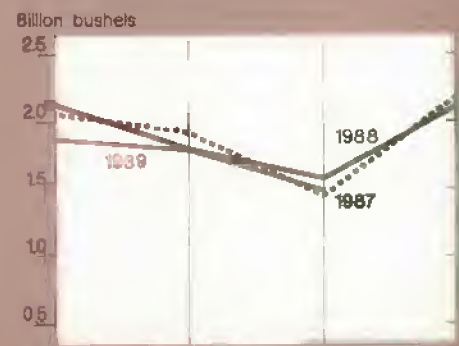
Cash receipts from livestock & products<sup>4</sup>



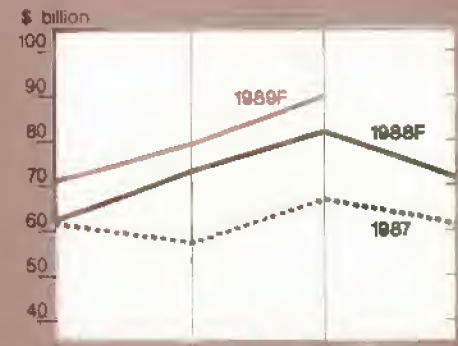
Corn beginning stocks<sup>5</sup>



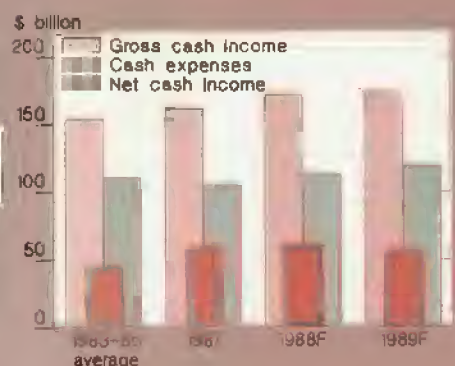
Corn disappearance<sup>6</sup>



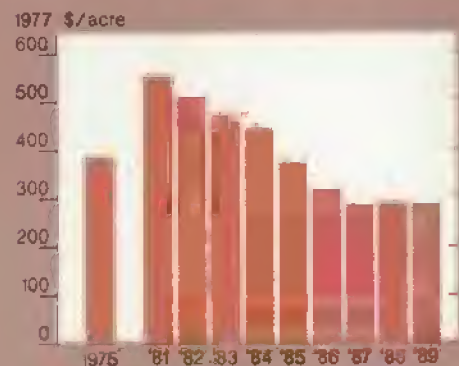
Cash receipts from crops<sup>4</sup>



Farm net cash income



Average real value of farm real estate



Farm value/retail food costs



For all farm products. <sup>2</sup>Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts.  
<sup>3</sup>Retail weight. <sup>4</sup>Seasonally adjusted annual rate. <sup>5</sup>I=Dec.-Feb.; II=Mar.-May; III=June-Aug; IV=Sept.-Nov. F=forecast.

in 135 years. While there are again some signs on the horizon of a recession, a view of general economic prospects over the coming decade suggests that the U.S. economy could, on average, grow faster than it did this year, but slower than its major trading partners (see the General Economy article in this issue).

This scenario suggests that the value of the dollar will fall throughout the decade, boosting U.S. exports. Such an environment would push up U.S. agricultural exports and bolster farm incomes.

What of the rapid inflation, the OPEC oil price shocks, the looming recession, and the nascent farm crisis that marked the beginning of this decade? Among other things, they show how surprise developments can radically alter the outlook, and suggest that farmers use forecasts cautiously in their business planning.

And what of the Soviet grain embargo? It also shows that forecasting world events is a risky business. At the time, many thought that the embargo would markedly shift world trade patterns. It turned out to be a mild blip in world affairs; the USSR quickly resumed its position as a major importer of U.S. agricultural products.

Moreover, no one expected that the USSR and parts of Eastern Europe would move as they have to a more market-oriented, democratic system. While the success of the Soviet agricultural reforms remains to be seen, the impact likely will be small over the next several years, and not seriously affect the total amount of grain the USSR needs to buy on international markets.

Negotiations on a new long-term grain agreement between the U.S. and the USSR are scheduled to begin this month (see the special article on U.S.-Soviet grain trade in this issue). [Gregory Gajewski (202) 786-3313]

## Livestock, Dairy, and Poultry Overview

*When final data are in, per capita consumption of all meats in 1989 likely will meet or exceed last year's record. The increase in chicken and turkey, combined with nearly even pork consumption, will offset a drop in beef and veal consumption.*

*With autumn range and forage conditions improved over last year and net returns for cow-calf producers positive, 1989 may be the trough of the cattle inventory cycle that began in 1980. Herd expansion in 1989/90 will hold down increases in beef supplies in 1990, but result in greater supplies in later years. Poultry supplies should continue to expand in 1990. Milk and egg production also likely will be higher next year.*

### Feeder Supplies Up, But Fewer on Feed

Supplies of feeder cattle outside of feedlots in early October were up nearly 3 percent from a year earlier. While there were 17 percent more feeder steers and heifers weighing 500 pounds and over, the number under 500 pounds rose only slightly.

The increase in feeder cattle supplies outside of feedlots was partly due to the improved forage conditions in most areas this summer and to many cattle feeders' inability to bid cattle away from stocker operators while still covering costs.

The number of cattle on feed in the 13 reporting states in early October declined 6 percent from a year earlier. Except for 1985, the number was the lowest reported since 1974.

Placement and marketing activity were slow during the third quarter; both were 5 percent below 1988. For both steers and heifers, the numbers on feed were concentrated in the heaviest weight classes.

Feedlot inventories likely will continue to be held down by reduced numbers of light and midweight cattle on feed, and by the expected near-term marketing of the heavier cattle on feed. Continued good forage conditions and declining corn prices may result in increased feedlot placements and a tight supply of yearling cattle available for feedlot

placement by the end of the fourth quarter.

Placements in October rose 8 percent above a year earlier, as more cattle were forced off pastures because conditions declined seasonally. Marketings increased 2 percent, but fairly large numbers remained to be marketed in November and early December. Cattle on feed in November were 3 percent below a year earlier.

Record dressed weights for federally inspected steers and heifers were reported for the second consecutive month in September. Cattle slaughter weights typically increase in the fall. However, slaughter weights have been rising over the last several years. This reflects several factors:

- the increased proportion of feedlot-finished animals in the mix,
- heavier weights of cattle when they are initially placed on feed, and
- greater mature cattle size.

### Cattle Prices To Be Flat

During late October, Omaha fed cattle prices increased to the low \$70's per cwt, while boxed beef values recovered from the annual low posted in September.

Fed cattle prices likely will remain in the low- to mid-\$70's per cwt through the rest of the fourth quarter because of an expected tighter supply. However, boxed beef wholesale values may be held in check as competition from poultry increases during the holiday season.

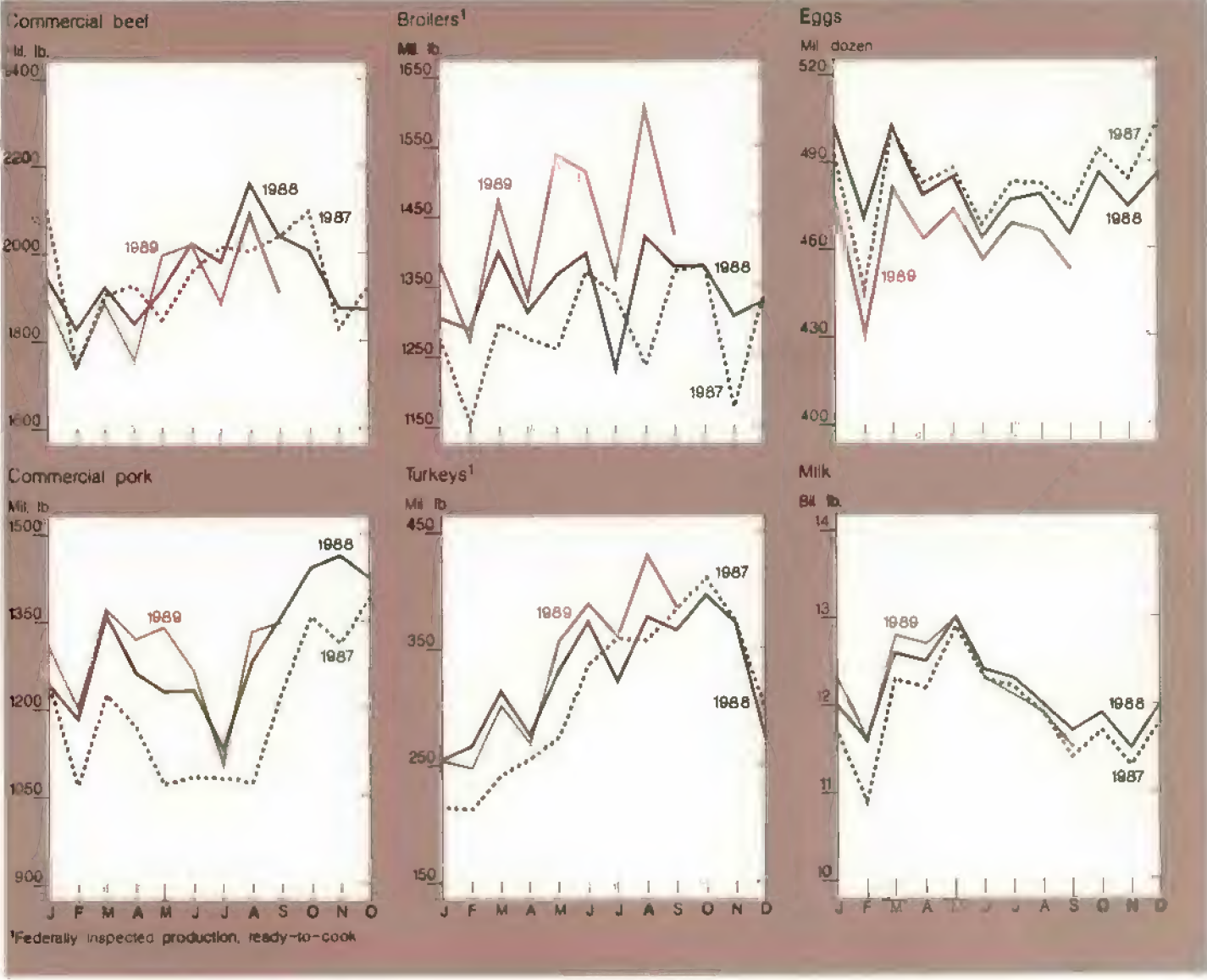
The farm-to-retail price spread began to narrow in October because of recent increases in fed cattle prices. It should continue to decline with prospects for stronger cattle prices and stable retail prices through the fourth quarter.

Retail beef sales remained steady through early November, and holiday buyers' preference for turkey and ham is taking its annual toll on beef sales.

### Higher Hog Prices During National Pork Month

Strong demand for pork and lighter-than-expected slaughter have raised hog prices substantially above a year earlier.





In October, the 7-market average price of barrows and gilts rose by more than 20 percent to \$47 per cwt, \$8 higher than October 1988. Market expectations of U.S. government aid to Poland in the form of \$10 million worth of pork bellies gave hog prices a boost.

More retail outlets than usual featured pork early in the fourth quarter, partly because October was "National Pork Month." Promotions were also aided by low wholesale pork prices relative to other meats and by relatively large supplies. Retail sales expanded, boosting demand for pork at the wholesale level. New pork sandwiches at fast food outlets may be raising the demand for lean processing pork.

Demand from Japan for pork loins was strong. Japanese demand rises seasonally in late summer and early fall, but it was heightened this year by reduced supplies from other major exporters. Wholesale loin prices in October averaged 27 cents per pound above a year earlier.

Although demand rose, hog slaughter fell somewhat short of expectations based on last spring's pig crop. The March-May crop was 1 percent larger than a year earlier, but slaughter for October through mid-November was down 3-4 percent.

Domestic and export demand for pork may taper off, but both are expected to remain stronger than a year earlier for several more months. Retail pork prices

are forecast to rise above a year earlier. Barrow and gilt prices likely will hold in the mid-\$40's per cwt.

**Broiler Expansion To Continue Though Prices Weaken**

Broiler production for 1989 likely has grown by 7 percent to 17.3 billion pounds, as producers have responded to continued profitability. Production in 1990 is anticipated to increase another 7 percent.

Greater supplies, along with normal seasonal factors such as the end of summer cookouts and vacations, have weakened prices. The 12-city wholesale broiler

price averaged nearly 60 cents per pound in the third quarter, and it likely will decline to 50-52 cents in the fourth quarter. Prices for 1990 are expected to be 49-55 cents.

If wholesale broiler prices continue relatively high and feed costs are lower, net returns should remain positive in 1990, although somewhat smaller than this year. Third-quarter 1989 net returns for broiler producers were about 10 cents a pound, but returns likely will fall to 3-4 cents for the fourth quarter.

### ***Soviets Buy U.S. Legs***

The Soviets turned to the U.S. market for poultry meat this fall for the first time since 1982. October purchases of 33 million pounds of broiler leg quarters helped clear out an accumulation of a product in chronic oversupply in the U.S. Whole leg and leg quarter prices strengthened immediately following the announcement at the end of September.

By mid-October, leg quarter prices had risen 23 percent and whole leg prices were 13 percent above their September lows. Leg prices were not expected to be sustained by this one sale, though, and they eased by the end of October.

The long-run outlook for U.S. poultry exports to the USSR is uncertain. Broiler exports to other destinations continue at record rates, with Japan as the leading market.

### ***Turkey Production To Be Strong in Early 1990***

Turkey production continues to expand, with fourth-quarter output estimated up 12 percent from a year earlier. Production for 1989 is estimated about 6 percent above 1988. Higher prices earlier this year, together with the outlook for lower feed costs, provided the main impetus for the continued sharp expansion.

Recent prices have exhibited the usual fall strength. Eastern region wholesale hen turkey prices rose from a September low of about 55 cents per pound to about 72 cents in early November. However, prices are expected to weaken again before the end of the year, and average 63-65 cents during the fourth quarter, compared with 72 cents a year ago.

Consumption increased in the third quarter and for the year is likely to exceed last year's 15.9 pounds per person.

Turkey poult placements continued sharply above a year earlier in October, rising 20 percent. The gain indicates that production will be up sharply in early 1990. Production for first-quarter 1990 is estimated to exceed that of a year earlier by about 12 percent.

Despite lower feed costs, slightly negative net returns in late 1989 may lower future placements, and could slow second-quarter 1990 production increases. Given expected large first-quarter production, prices may decline from a year earlier. Eastern region hen prices are expected to average 55-61 cents a pound during first-quarter 1990, compared with 62 cents a year earlier.

### ***Egg Production Down in 1989, But Likely Up in 1990***

Egg production for 1989 probably is down about 3 percent. The laying flock in early October was nearly 3 percent below a year ago. Although returns in 1989 have been above average, flock expansion has been moderate. This may reflect producers' memories of the sustained losses in 1987 and 1988. Despite the slow response to date, egg production in 1990 is projected to increase 1-2 percent.

Egg prices continue to be strong. The New York wholesale price for large eggs averaged 85 cents per dozen in October, up 19 cents from a year earlier. The higher prices reflect relatively strong demand at a time of reduced supplies. Fourth-quarter prices are expected to average 84-86 cents. As supplies increase, prices in 1990 probably will slip to an average 66-72 cents.

Higher egg prices and declining feed costs combined in 1989 to provide egg producers with the longest period of positive net returns in over a decade. Returns were about 16 cents per dozen in the third quarter and likely will be 16-20 cents in the fourth quarter. The last time average net returns were positive for all quarters of a year was in 1976.

### ***Milk Prices Surge***

Retail prices of milk and dairy products have risen sharply since June. The dairy

price index stood at 116.1 in September (1982-84=100), up more than 2 percent since June and almost 7 percent above a year earlier.

September retail dairy prices reflected earlier increases in wholesale and farm milk prices. Strong cheese sales, commercial exports of nonfat dry milk, and midyear dips in milk output have tightened dairy markets.

Retail dairy prices were relatively slow to reflect increases in wholesale prices, in part because of a cushion built earlier in 1989. Merchandisers anticipated price increases and never fully reflected the December 1988-March 1989 declines in wholesale and farm prices.

Grocery store prices for dairy products will increase briskly in early 1990. Wholesale prices of manufactured products will not decline until the end of 1989, and the milk price paid by fluid milk processors will not peak until January or February.

The index of average retail dairy prices for 1989 is expected to be up about 6 percent from 1988, the sharpest annual hike since 1981. This year's rise is a strong contrast to the 1- or 2-percent annual increase during most of the 1980's.

Retail dairy prices during the first half of 1990 are anticipated to drift downward, as wholesale and farm prices drop. Overall, average retail dairy prices in 1990 are not expected to increase from 1989.

**For further information, contact:** Ken Nelson, coordinator; Fred White, cattle; Kevin Bost, hogs; Lee Christensen and Larry Witucki, broilers, turkeys, and eggs; and Jim Miller, dairy. All are at (202) 786-1285.

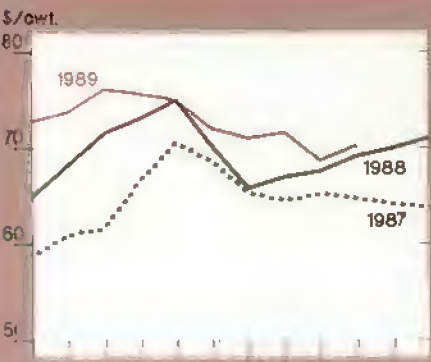
## **Field Crops Overview**

*Soviet purchases of U.S. corn in October came to 8 million tons, the largest monthly total on record for a single-country purchase from the U.S. This has helped cushion the postharvest drop in corn prices. For wheat, in contrast, a good Soviet crop, tight world supplies, and opposition from within the USSR to importing wheat could hold Soviet purchases from all sources in 1989/90 to the lowest in a decade.*

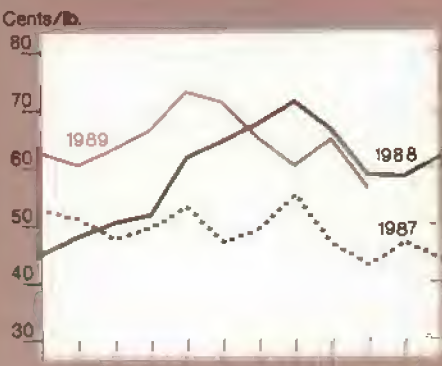


Commodity Market Prices

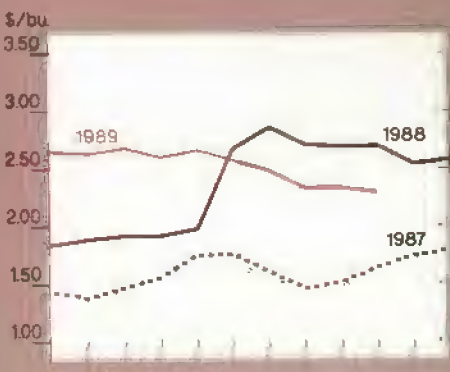
Choice steers, Omaha



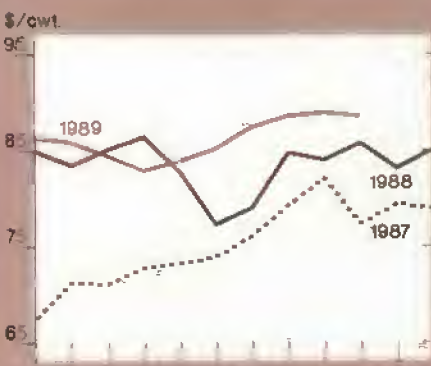
Broilers, 12-city average



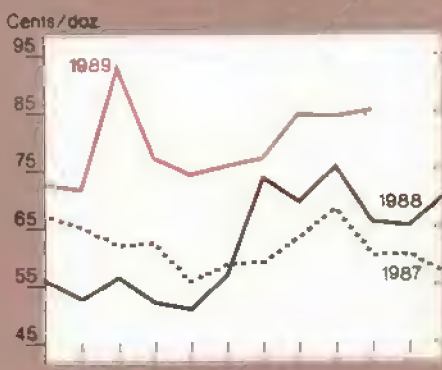
Corn, Chicago<sup>3</sup>



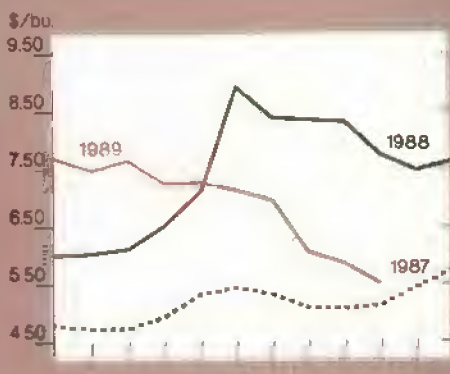
Feeder cattle, Kansas City<sup>1</sup>



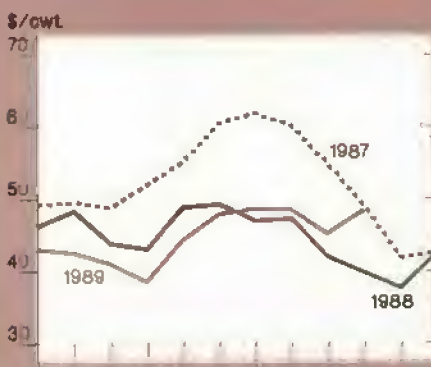
Eggs, New York<sup>2</sup>



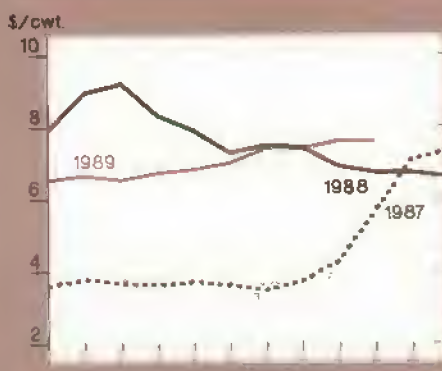
Soybeans, Chicago<sup>4</sup>



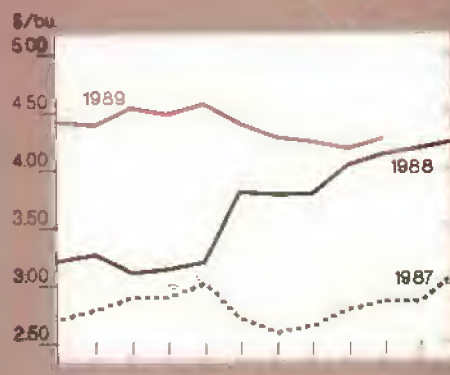
Barrows and gilts, 7 markets



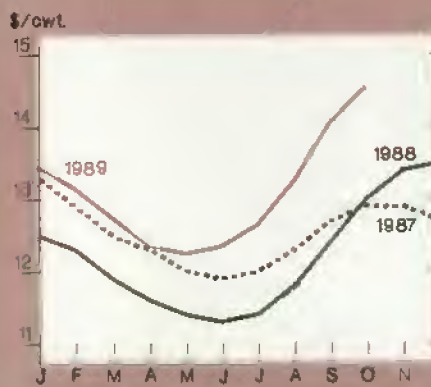
Rice (rough), SW Louisiana



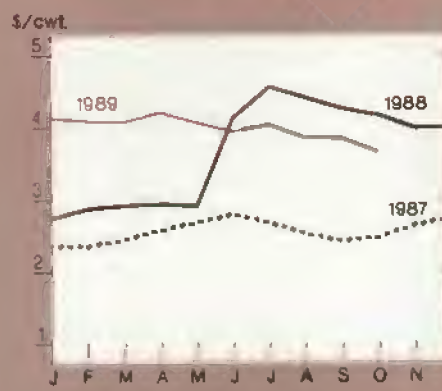
Wheat, Kansas City<sup>5</sup>



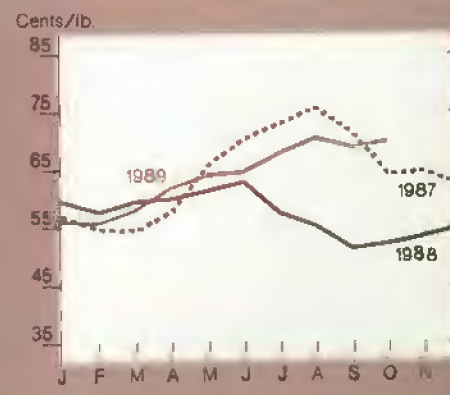
All milk



Sorghum, Kansas City



Cotton, average spot market



<sup>1</sup>600-700 lbs., medium no. 2    <sup>2</sup>Grade A large    <sup>3</sup>No. 2 yellow.    <sup>4</sup>No. 1 yellow.    <sup>5</sup>No. 1 HRW

*The export outlook for other grains is mixed. U.S. rice exports are forecast down 8 percent for 1989/90 because of a decline in world imports. Soybean exports are expected to be only about 70 percent of the predrought level. But 1989/90 U.S. cotton exports are likely to set a record for the decade.*

### **Soviet Buying Intentions Uncertain**

The Soviet Union is typically the source of much of the year-to-year uncertainty about world trade and U.S. exports, and the 1989/90 season is no exception. But, several factors are expected to mean large Soviet coarse grain purchases this season:

- the urgency placed by General Secretary Mikhail Gorbachev on raising domestic livestock production,
- significant shortfalls in state feed grain procurements,
- decreased forage crop production, and
- prices favoring corn over other grains.

USDA estimates that the USSR will import 24 million tons of coarse grains from all sources in 1989/90, including 20 million tons of corn.

Most of the corn would logically come from the U.S., which dominates world corn trade. However, the Soviets bought no corn until early October, leading to concerns about overestimating Soviet needs.

Then, in the space of 3 weeks, they purchased nearly 8 million tons, reportedly for delivery over the next several months. Earlier pessimism about Soviet imports quickly gave way to optimism, as USDA and private analysts raised Soviet coarse grain import forecasts.

In the U.S. wheat market, on the other hand, the Soviets are not currently active. Besides the good Soviet crop, tight world supplies and consequent high prices are expected to hold 1989/90 Soviet purchases from all sources to 12 million tons, the lowest in a decade. The current

grain agreement with the U.S. calls for the USSR to buy at least 4 million tons of wheat during the October-September agreement year.

Slightly over 1 million tons of wheat were shipped to the USSR early in the marketing year (June-May), but there have been no sales during the current agreement year. The absence of sales has raised questions by trade analysts about Soviet buying intentions for the remainder of the marketing year. But, as this year's corn developments illustrate, the Soviets can make large purchases in short order.

### **Feed Grain Marketings Lag**

By mid-November, the U.S. corn harvest in the 17 major producing states was 93 percent complete, 7 percent above the 5-year average but 1 percent below last year. Only Ohio and Pennsylvania were lagging the 5-year average. The corn crop is forecast to reach almost 7.6 billion bushels, up 54 percent from last year.

The total coarse grain harvest this year is expected to be 223 million metric tons, 49 percent above last year's drought-reduced crop. The increase this year more than offset a decline of 67.7 million metric tons in beginning stocks. This year's total coarse grain supply of 290 million tons is 2 percent larger than the 1988/89 supply.

Farmers have been slow to market their corn this season. This slowness—plus large orders from importing countries, especially the USSR—has prevented a significant harvest decline in prices so far. In mid-November, no. 2 yellow corn averaged \$2.32 a bushel at Central Illinois elevators, 2 cents a bushel higher than the August average. A drop of 35-40 cents per bushel would have been more normal.

Reflecting income tax considerations, producers may be delaying sales until after the first of the year. However, a bullish outlook on the part of farmers, coupled with ample on-farm storage space, also is probably contributing to the slow marketing. If marketing picks up significantly during the winter quarter, prices will weaken.

Weather will have an important bearing on prices next spring. Good weather during planting and the early growing season likely would increase marketing, thus limiting seasonal price increases. However, poor planting conditions may discourage marketing, adding to spring price increases.

### **Wheat Seeding Progress Favorable**

This fall's winter wheat was seeded under generally favorable conditions. As of early November, 93 percent of the winter wheat had been planted, up from an 89-percent average. With 83 percent of the wheat emerged, two-thirds of the crop was rated good to excellent.

Subsoil moisture in many parts of the Southern Plains improved over the summer because of above-normal rainfall in August-September. However, recent dryness has limited surface soil moisture in some areas, and the crop condition rating in the Great Plains is not exceptionally good for this time of year.

The 1989 wheat crop is estimated at slightly over 2 billion bushels, up 13 percent from last year. Given the small carryin, ending stocks are forecast to drop 37 percent in 1989/90, to 443 million bushels. Domestic use, estimated at slightly over 1 billion bushels for the marketing year, is up 7 percent from a year earlier.

But exports, projected at nearly 1.3 billion bushels, are forecast down 10 percent because of pressure from competing exporters such as Canada coupled with reduced U.S. supplies. U.S. season average prices are expected to be \$3.85-\$4.00 a bushel, above the \$3.72 of a year earlier.

### **Rice Stocks Lowest Since 1980/81**

U.S. rice production is forecast down slightly in 1989/90 to 156 million cwt, 2 percent below last year. All of the decrease is from a projected 6-percent drop in long grain production. However, medium/short grain production is projected to rise 10 percent. Lower overall output reflects a 5-percent drop in harvested acreage from 1988/89, to 2.75 million acres. The lower area is partially offset by an estimated 3-percent rise in yields.



The U.S. rice supply for 1989/90 is projected to decline 7 million cwt from 1988/89. Beginning stocks are estimated down about 5 million cwt, nearly 15 percent, and production is projected down 3 million cwt, about 2 percent. Imports are expected to increase from 4.2 million to 5 million cwt.

U.S. rice exports are forecast down nearly 8 percent to 79 million cwt in 1989/90, reflecting a forecast decline in world trade and continued strong exports by Thailand and Vietnam. U.S. export prices are expected to remain competitive. In recent months, the gap between U.S. and Thai prices for high-quality rice has narrowed.

For the fourth straight year, U.S. production is expected to fall short of use. As a result, stocks may slip to about 24 million cwt by the end of the marketing year. This amount is down 11 percent from a year earlier and the lowest since 1980/81.

#### **Soybean Export Recovery Is Weak**

Soybean output for 1989/90 is forecast at 1.9 billion bushels, nearly a complete recovery from last year's drought. Yield recovery in the Corn Belt accounted for the overall production boost. Higher production, combined with 1988/89's larger-than-expected ending stocks of 182 million bushels, will raise supplies 15 percent above last year.

When the large rise in supplies meets more slowly growing demand for soybeans and products, the outcome will be lower prices. Prices likely will average between \$5.00 and \$6.00 a bushel, compared with \$7.35 last year.

Domestic use of soybean meal will recover, but meal exports are expected to remain unchanged from last year. The faster rise in soybean supplies, combined with the slower rise in demand, will rebuild stocks, possibly to 335 million bushels by year's end.

#### **Cotton Exports Expected Highest Since 1979/80**

Based on crop conditions in early November, USDA estimates that cotton production in 1989 will be 12.1 million bales, down from 15.4 million in 1988.

The U.S. cotton yield is expected to be 607 pounds per harvested acre, down 2 percent from the previous year; an early freeze and other weather problems hit the Delta and Texas this season.

Although U.S. cotton textile imports are expected to reach a near record and man-made fiber prices have become more competitive with cotton, domestic mills likely will use 8.2 million bales during 1989/90, about 5 percent above last year. Strong consumer buying, lower textile inventories, and larger denim production should keep domestic mill use strong this season.

At the beginning of the marketing year, forward export sales totaled only 2.7 million bales. Noncompetitive prices during most of last season helped reduce pre-season sales. However, despite these low sales, 1989/90 U.S. cotton exports are forecast to reach 7.8 million bales, the highest volume since 1979/80. The forecast reflects low foreign stocks and expected stronger demand from foreign mills.

With production likely to fall well below total use this season, U.S. cotton stocks at the end of 1989/90 could drop to 3.3 million bales, compared with 7.1 million in 1988/89. [Joy Harwood and Frederic Surls (202) 786-1840]

For further information, contact: Sara Schwartz, world food grains; Edward Allen, domestic wheat; Janet Livezey, domestic rice; Pete Riley, world feed grains; Larry Van Meir and Allen Baker, domestic feed grains; Roger Hoskin, domestic oilseeds; Carolyn Whitton, world cotton; Bob Skinner and Scout Sanford, domestic cotton; Jim Schaub, domestic peanuts. World information (202) 786-1824, domestic (202) 786-1840.

### **Specialty Crops Overview**

*Smaller-than-usual beginning stocks and strong export demand for frozen potatoes will provide continued strength for grower prices during the 1989/90 marketing season. Tight world supplies and strong demand are pushing U.S. processing tomato prices up in spite of a record-large crop. U.S. sugar prices are anticipated to drop with the arrival of*

*new-crop beet and cane sugar and with increased imports of quota sugar.*

*For fresh oranges, grapefruit, and lemons, stronger demand and lower domestic supplies should bolster 1989/90 prices. However, if Brazil's orange crop meets expectations, it could put downward pressure on processing orange prices. Tree nut prices are expected to be higher because of strong demand and smaller or steady production.*

#### **Potato Prices To Continue Strong; Fall Production Up Slightly**

U.S. potato growers are virtually assured of continued price strength during 1989/90. Low beginning stocks of frozen french fries and continuing strength in frozen potato exports have enhanced processors' demand.

Grower prices for the 1989 crop may exceed the \$6.02 per cwt average for 1988, while production will be slightly higher than last season's 356 million cwt. Grower cash receipts likely will exceed those for 1988.

Processors, entering the new marketing season in early October with storage stocks of frozen potatoes 20 percent below a year earlier, will be attempting to rebuild their reserves. Consequently, demand for 1989 potatoes for processing will be especially strong. Frozen products accounted for 31 percent of total potato production during the past 3 years.

USDA forecasts 1989 fall potato production to be 323 million cwt, 3 percent above the drought-shortened output in fall 1988. Production was flat in Idaho, where lower yields offset a small gain in harvested area. Drought sharply curtailed production for the second straight year in the Red River Valley of North Dakota and Minnesota.

#### **Processing Tomato Market Strong Despite Record Crop**

U.S. prices for processed tomato products were up about a third in 1989 because of tight world supplies. Consequently, several countries—particularly Mexico, Brazil, and Chile—have increased shipments of tomato products to the U.S.

Low beginning stocks of paste and continuing strong demand for processed

products in the retail and fast food sectors should keep domestic prices strong through 1989/90 despite increased imports.

Tight world supplies of processed tomato products prompted U.S. processors to contract 18 percent more acreage in 1989. Production from contracted acreage increased 30 percent to 9.5 million short tons in 1989 because of better weather and higher yields. Domestic production fell short of planned output in 1988, as did production in several EC countries.

#### *Arrival of 1989 Supplies Should Ease U.S. Raw Sugar Prices*

The arrival of new-crop beet and cane sugar on the market, combined with increased deliveries of quota imports, likely will lower U.S. raw sugar prices this winter. Global sugar production is forecast to be about 1 percent higher in 1989/90 than a year earlier.

Domestic raw sugar prices tend to move around an administratively set market stabilization price (MSP). The MSP, fixed by USDA, is used in calculating penalties and liabilities under quota-exempt sugar programs. It represents an estimate of the price at which producers are likely to sell their sugar in the marketplace rather than forfeit it to USDA's Commodity Credit Corporation.

In fiscal 1987/88, U.S. raw sugar prices (nearby futures, c.i.f., duty-paid New York, contract no. 14) averaged 1.5 percent above the MSP. For 1988/89, prices averaged 3.0 percent higher than the MSP, which was 21.80 cents per pound.

USDA set the 1989/90 MSP at 21.95 cents a pound. Prices for the first half of November averaged 6.0 percent above this, likely reflecting concern about near-term availability.

Prices are expected to move closer to the MSP when new-crop beet and cane sugar enter the market in late 1989 and early 1990. In addition, import quota changes and adjustments in shipping patterns, intended to speed up deliveries during fourth-quarter 1989, may help ease prices closer to the MSP.

U.S. beet and cane sugar production for the 1989/90 crop (September-August) is forecast up 1 percent to 7.0 million short

tons: 3.3 million tons of cane sugar and 3.7 million of beet are expected.

#### *Greater Demand, Shorter Supplies To Bolster Citrus Prices*

Expected strong demand will put upward pressure on fresh citrus prices in 1989/90. However, a large orange crop forecast for Brazil could create downward pressure on processing orange prices.

Prices for fresh oranges are expected to remain steady or climb slightly, despite a forecast 3-percent rise in California's navel orange output. The average on-tree price for all oranges in October was double that of a year earlier. Navel orange quality and size are good, and export demand for fresh oranges has been strong.

Although Florida's orange crop will fall from 1988/89, anticipation of larger Brazilian supplies of frozen concentrated orange juice (FCOJ) will keep downward pressure on domestic prices. Brazil's FCOJ pack in 1989/90 is estimated to be a record 307 million gallons (42 degrees Brix), 27 percent more than the previous season.

Fresh and processed grapefruit prices likely will range higher in 1989/90 because of smaller available supplies. Florida's production is forecast down 20 percent from last season, while Texas production is forecast moderately lower.

For lemons, smaller supplies boosted prices through mid-October, and prices are likely to remain above a year earlier through the rest of the season. Production is forecast 1.5 percent lower than last season and 5 percent below 1987/88.

#### *Higher Tree Nut Prices Likely*

Tree nut growers generally will receive higher prices during 1989/90 than a year earlier. Strong demand and smaller or unchanged supplies of almonds, walnuts, pecans, macadamias, hazelnuts, and pistachios will lift most prices.

Preliminary data point to a smaller almond harvest than last year. By the end of September, handlers had received only 240 million pounds of almonds, compared with 324 million a year earlier. Untimely rains during September lowered quality among the nuts not yet harvested.

Despite a smaller crop, almond handlers may ship a record volume to domestic buyers again in 1989/90. Large carry-over supplies from 1988 will enable the industry to meet the robust domestic demand. Export shipments may fall 5 to 10 percent from last year because of the reduced U.S. production and a record Spanish crop.

The grower price for walnuts may improve from the 1988/89 average of \$927 per ton. Production is forecast up 2 percent, but beginning stocks are down 8 percent from last season. Total supplies are estimated down 1 percent. Export demand for walnuts is expected to be strong because several foreign suppliers appear to have smaller crops than last season.

Grower prices for pecans likely will exceed the 1988/89 average of 54 cents a pound because supplies this year are moderately lower. Although cold storage holdings of shelled pecans are higher, production is down 22 percent from 1988. However, Mexico expects a large harvest and will export more pecans to the U.S. in 1989/90.

Pistachio lovers likely will pay more and snack less this winter because of smaller supplies and higher prices. Pistachios, like most tree nuts, tend to cycle between bumper and lean years. Growers harvested 94 million pounds (in-shell basis) in 1988, but production is forecast at only 28 million in 1989. Despite larger ending stocks, total supplies are lower than in 1988/89.

Hazelnut (filbert) growers are expecting 21 percent less output in 1989. Grower prices likely will rise moderately from last season. Macadamia nut prices have trended upward despite rising production. Growing demand has absorbed the added macadamia output. Cashew prices likely will be about the same as last season, while Brazil nut prices will be higher because of reduced supplies. [Glenn Zepp (202) 786-1883]

For further information, contact: Kate Buckley, fruit; Shannon Hamm, vegetables; Peter Buzzenell, sweeteners; Verner Grise, tobacco; Doyle Johnson, tree nuts and greenhouse/nursery; David Harvey, aquaculture. All are at (202) 786-1883.





## Commodity Spotlight

### Canola Poses Property Rights Issue

Growing canola, or edible rapeseed, can be a risky business—especially if neighbors plant adjacent fields to a variety of rapeseed high in erucic acid. Cross-pollination can destroy the value of both crops. Farmers and at least two state governments are working out ways to coordinate plantings to avoid the problem. While this is a relatively new property-rights issue, the solutions now being developed contain some hidden costs.

Developed in Canada, canola is a variety of rapeseed that is low in erucic acid. Of all vegetable oils, canola oil is promoted as being the lowest in saturated fats, and it is also high in mono-unsaturated fats. Both characteristics make it attractive to health-conscious consumers.

Rapeseed high in erucic acid is inedible, but is used to make high-temperature synthetic lubricants. It is also used as a plasticizer in manufacturing nylon filaments.

Rapeseed is not a new crop; small quantities have been grown in the U.S. for years. But canola plantings in the U.S. have grown from almost zero a few years ago to over 100,000 acres this year, according to industry sources.

### Fatty Acid Content Is Critical

Current industrial standards require a minimum 45-percent erucic acid content in industrial rapeseed. But the U.S. Food and Drug Administration limits the erucic acid component of rapeseed intended for human consumption to no more than 2 percent of the fatty acid composition. Erucic acid is not readily digested by laboratory animals and can cause physiological disorders when consumed in large amounts. Consequently, rapeseed oils with erucic acid content between 2 and 45 percent are commercially useless.

If a canola-type rapeseed with 1-percent erucic acid completely cross-pollinates with an industrial-type rapeseed bred for 50-percent erucic acid, the result is a hybrid with 25-percent erucic acid. How cross-pollination between fields affects the erucic acid component depends on the frequency of cross-pollination within each crop.

As the percentage of plants cross-pollinated increases, the erucic acid level will rise in the edible type and fall in the industrial type. The edible types are more vulnerable to crossing than the industrial. While any cross-pollinating of industrial rapeseed with a low-erucic acid type will cut acid, pollination rates of 20 percent or more of the crop are necessary to cause the acid level to fall below 45 percent.

However, if cross-pollination of a low-erucic acid rapeseed rises above about 5 percent, erucic acid content could exceed the 2-percent cutoff for edible rapeseed. Wind direction, speed, and bee activity are a few of the factors that affect rates of cross-pollination.

No one knows for certain how closely together farmers can safely plant the varieties. Distances as long as 5 miles or as short as one-half mile have been suggested. In Europe, farmers risk growing the two closer than even one-half mile. But the potential for cross-pollination is real and could become more apparent if seed companies and processors successfully increase growers' interest in either variety.

### The Beekeeper Parable In Reverse

Rapeseed cross-pollination is an example of interdependent economic activity called an "externality." Generally, an externality exists when the decision to produce, consume, or exchange goods or services affects parties who are not part of the transaction.

In this case, a farmer's decision to produce one variety of rapeseed can adversely affect a neighbor's production of the other kind.

Not all such interactions are damaging. A classic example of a mutually beneficial externality is the beekeeper and orchard operator. The bees pollinate the blossoms so the trees bear fruit. The bees use the blossoms' nectar to produce honey. The orchard and beekeeper each provide an invaluable service to the other, yet there need not be a market transaction or payment between them.

With rapeseed production, the cross-pollination between the two varieties leads to the destruction of both crops, imposing costs on producers. No market mechanism exists to assess damage claims or make up losses. When such externalities occur, governments often step in to help organize a solution.

### Tennessee, Idaho, & Washington Work on Solutions

Although no loss from cross-pollination has been documented to date, contractors, farmers, and governments are aware of the potential problem. Most rapeseed is grown under contract, and most contractors require that farmers maintain a distance between varieties. One major contractor requires 2.5 miles between the varieties.

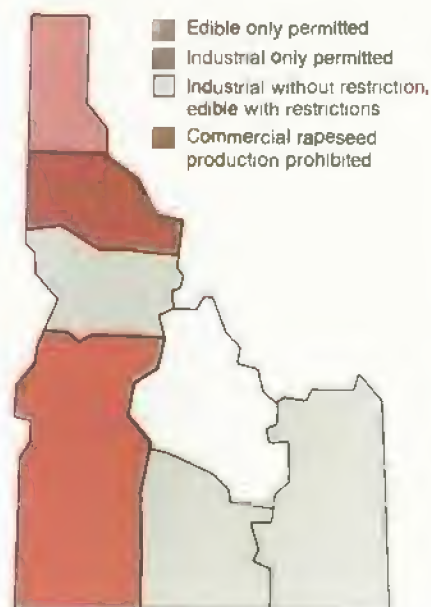
But how are these contracts to be enforced? If a farmer plants one variety of rapeseed and signs the contract in good faith, then discovers that another farmer a short distance away has planted the other variety, who is liable? Did the first farmer breach his contract? These issues could end up in court.

In Tennessee, where both varieties are grown, inedible rapeseed has settled in the western tier of counties. Edible production has tended to locate further east, but the arrangement has been informal and there is no regulation.

Idaho, on the other hand, has had six formalized production districts since 1986. The rules governing rapeseed production differ in each.

For example, in district 1, which is the northernmost four or five counties, only canola may be grown. In district 2, which includes the adjoining counties, only industrial varieties may be grown. In district 3, industrial rapeseed may be grown by anyone. Canola may be grown also, but only if the farmer is sure that his crop does not interfere with the industrial varieties.

Idaho Segregates Rapeseed Production Into Districts



Washington State also has formal production districts, although farmers there mostly grow canola.

Government solutions to externalities are not always costless. The assignment of production districts to one kind of rapeseed or other removes from the farmer the decision of what to plant. Farmers often have resisted oversight of production decisions, preferring independence, and they could shun production of a crop requiring compliance with regulations.

The allocation of production districts between the two varieties might seem sensible today, but in the future could represent a misallocation of resources between the varieties. The Idaho law does contain provisions for reallocation.

By assigning production rights on the basis of location, the government could be altering income opportunities for farmers if one variety becomes more profitable than another and producers cannot respond freely.

Although solutions to the cross-pollination issue are unlikely to be perfect, there is an incentive to resolve the issue if the future of rapeseed production, particularly of edible varieties, is to be as bright as its supporters maintain. *[Roger Hoskin (202) 786-1840]*

## Upcoming Economic Reports

Summary Released	Title
<i>December</i>	
4	World Agriculture
12	World Ag. Supply & Demand
13	Ag. Income & Finance
18	Tobacco Yearbook
19	Sugar & Sweeteners
20	Agricultural Outlook
21	Livestock & Poultry Update
22	Foreign Ag. Trade Update



## World Agriculture and Trade

### Chile's Fruit Prospects Recover

While the cyanide grape scare last spring disrupted the Chilean fruit industry, it does not appear to have cut permanently Chile's share of the U.S. market.

In March, the U.S. Food and Drug Administration discovered two imported Chilean grapes contaminated with cyanide. Sales of Chilean fruit were subsequently halted in the U.S. and several other countries. Within a week, the U.S. declared Chilean fruit safe and announced that grape and berry imports could return to normal. But, the scare severely disrupted the Chilean fruit sector for a brief period.

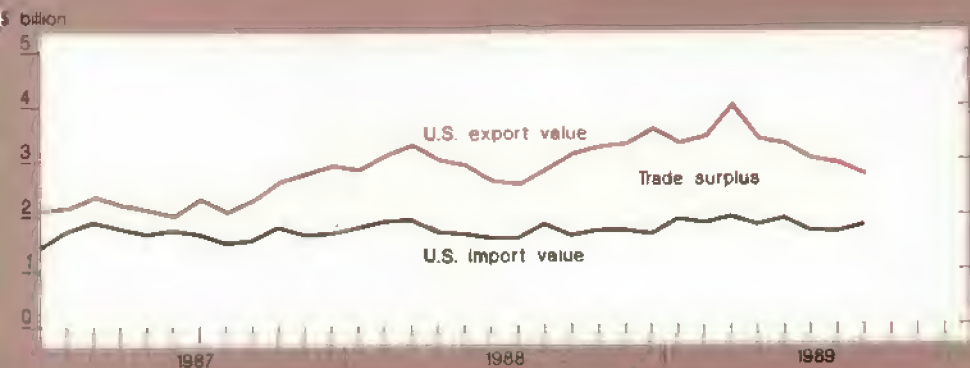
Chilean fruit is sold on consignment. If it is not sold, the growers do not receive any returns. Following the cyanide scare, many tons of grapes were destroyed both in Chile and in other countries, leaving growers with no returns.

The Chilean government, to alleviate some of the financial difficulties, provided about \$50 million to fruit growers who could document that their fruit was destroyed.

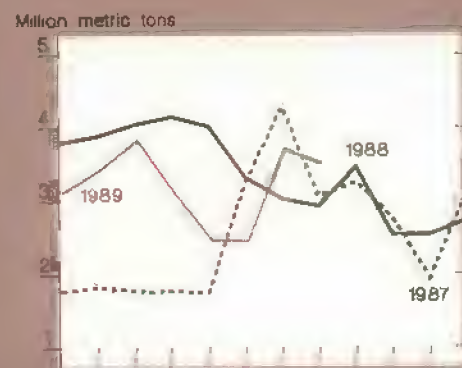


# U.S. Agricultural Trade Indicators

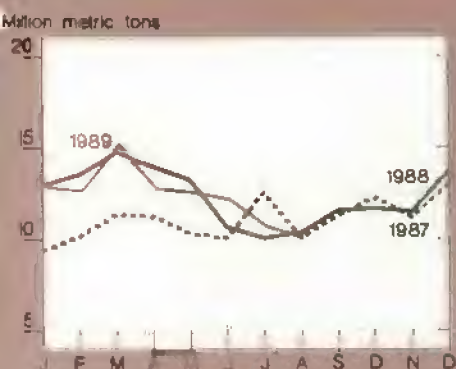
## U.S. agricultural trade balance



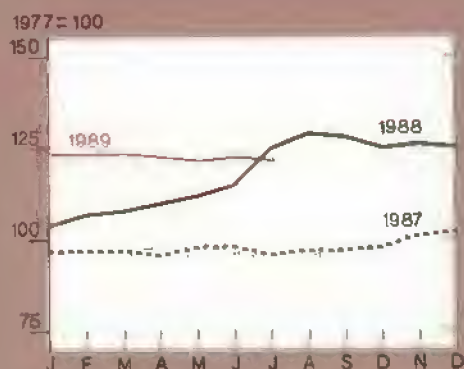
## U.S. wheat exports



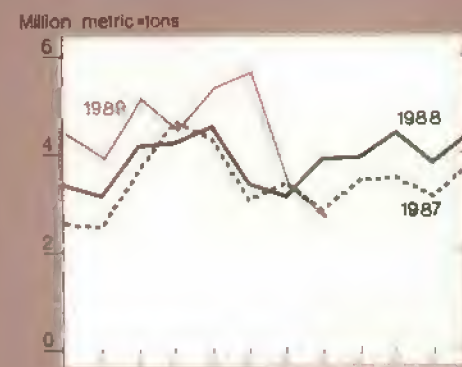
## Export volume



## Index of export prices



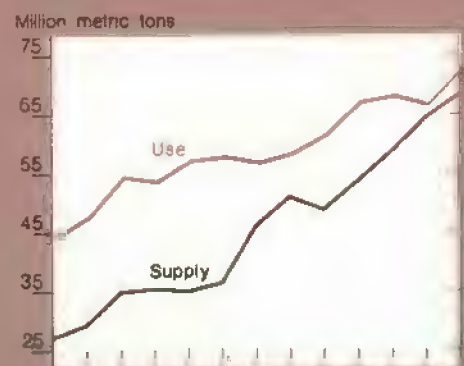
## U.S. corn exports



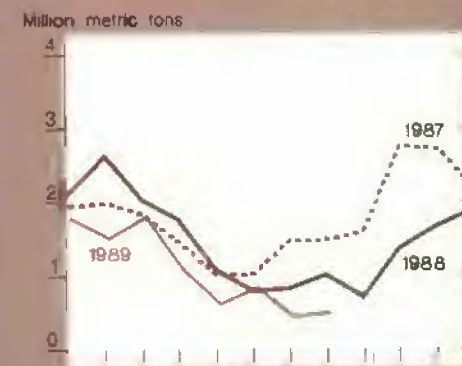
## Foreign supply & use of coarse grains



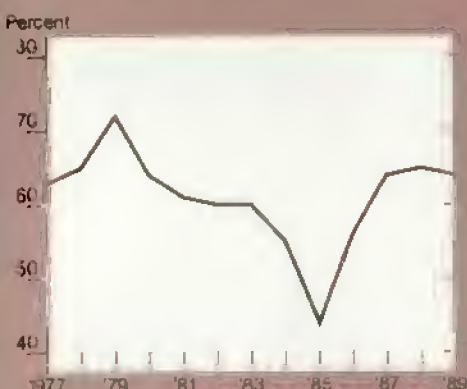
## Foreign supply & use of soybeans



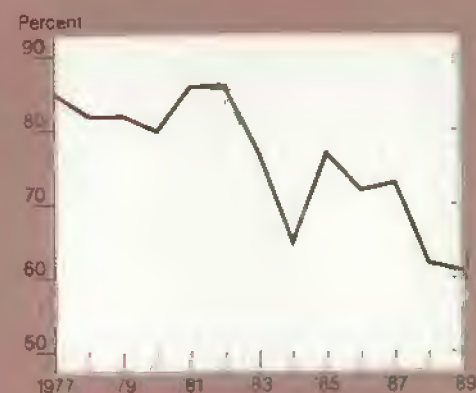
## U.S. soybean exports



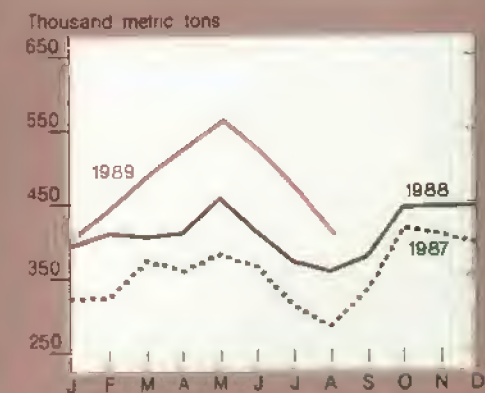
## U.S. share of world coarse grains exports<sup>12</sup>



## U.S. share of world soybean exports<sup>12</sup>



## U.S. fruit & vegetable exports<sup>3</sup>



<sup>1</sup>Excluding intra-EC trade. <sup>2</sup>October-September years.

<sup>3</sup>Includes fruit juices.

## Grape Scare Only Dented Sales

As soon as Chilean fruit was declared safe, it sold very rapidly. Total grape sales to the U.S. were almost normal for the marketing year. In 1987/88, Chile sold 261,000 metric tons of grapes to the U.S. Sales dropped only 5.4 percent in 1988/89, the year marked by the cyanide incident.

Because the grape scare hit in March, nearly the end of the marketing season, cuts in growers' incomes were limited. Most of the harvest had already been sold.

Chile will elect a new president this month, who will take office in March. While the leftist candidate leads in the polls, the success of the fruit export sector under the outgoing Pinochet regime will put pressure on the new government to continue with a free market orientation.

The freedom of operation that has been afforded the fruit sector, along with Chile's natural advantages in fruit production, has accounted for the fast growth in production and exports over the past 16 years.

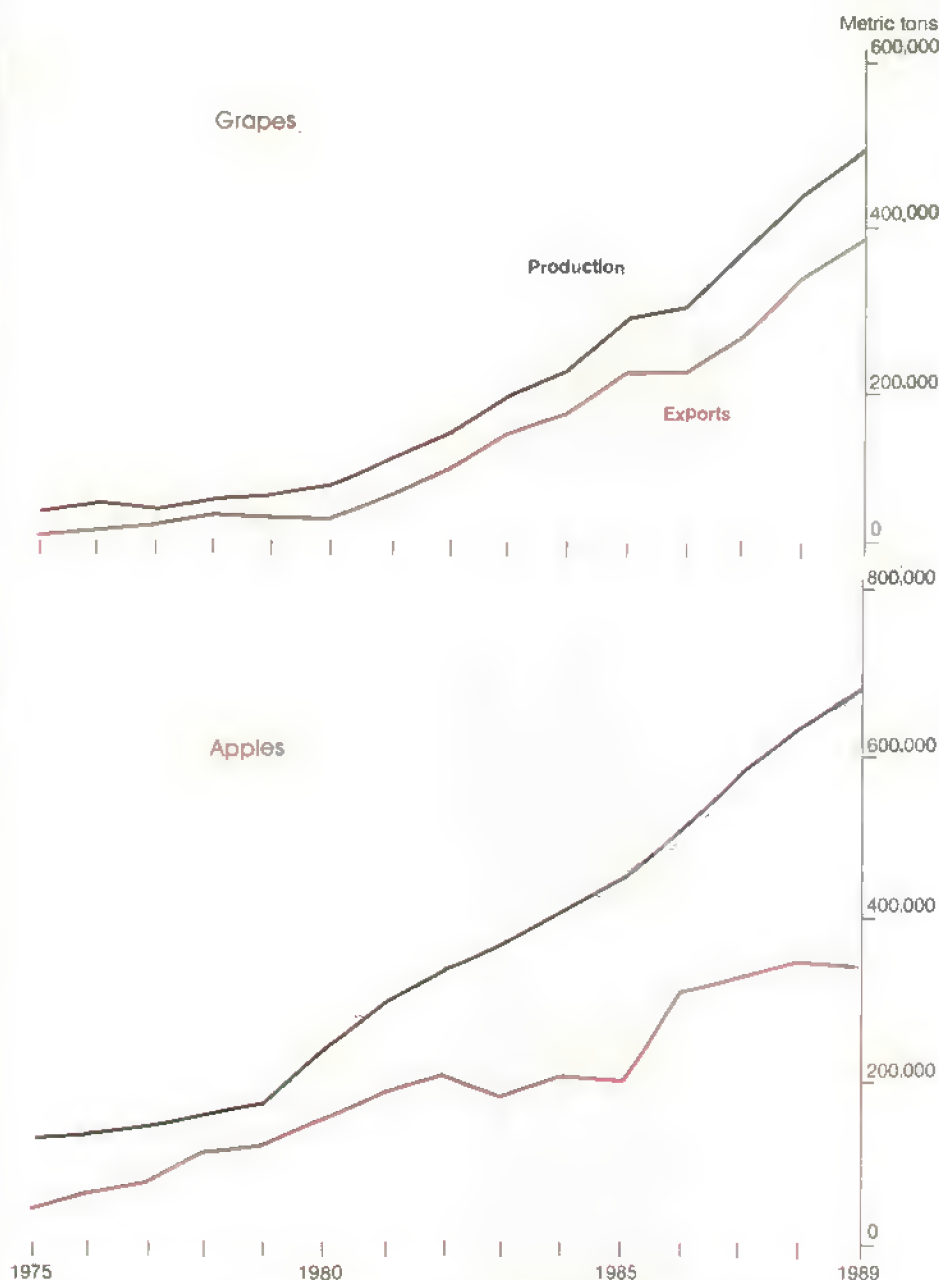
## Grapes Led Fruit Expansion

Chile's fruit-growing area and output have increased dramatically since 1973. That year, 65,630 hectares were devoted to fruit production. By 1986, the amount had almost doubled, climbing to 130,000 hectares. Production nearly tripled, from 540,450 tons in 1973/74 to 1,463,000 in 1986/87.

Much of the increase in acreage was for table grape production. Land used to grow grapes surged more than 600 percent to 38,500 hectares by 1986. Grape production increased from 51,000 metric tons in 1973 to a forecast 1989/90 crop of 495,000 tons, up more than 700 percent. Of all fruits produced in Chile, table grapes account for the most land and the highest tonnage.

Apples are the number two fruit crop in Chile. During 1973-89, production jumped by 440 percent to a forecast 650,000 tons. A major export crop, the apples are sold mainly to Europe. Other fruits produced for export include

## Production and Exports Climbing for Chilean Grapes and Apples



\*1973-79 data in calendar years. 1980-89 data in marketing years. All 1989 data preliminary.

peaches, nectarines, and pears. Except for peaches, they showed large increases in area planted during 1973-86.

In 1984, a total of 448,375 tons of fresh fruit were exported from Chile. In 1986, that figure had increased to 657,215, a gain of 50 percent.

## Geographic, Economic Elements Behind the Expansion

Chilean seasons are opposite those of the Northern Hemisphere, so the fruit ripens

during the U.S. and European winter. Chile thus can supply Northern Hemisphere markets and meet virtually no competition in fresh products from domestic producers.

But Chile also encompasses a variety of climates, so Chileans produce a large number of products at different times of the year. And Chile is relatively isolated physically; the isolation offers excellent natural protection from pests and diseases. To the north is a large desert, to



the east a mountain range, and to the west the Pacific Ocean.

Despite the country's natural advantages, fruit production did not flourish until after 1973, when the Pinochet regime began to institute a free market. The government took steps to protect the property rights of private landowners. Breaking up of big private farms was stopped and the government made it clear that no further expropriations of land would occur. This assurance led landowners to invest more in their farms.

### **Exchange Rate Policy Bolsters Fruit Exports**

Chile's exchange rate policies have promoted fruit exports. In general, exchange rates fell rather rapidly from 1973 on, and by 1988 the rate was 163.9 pesos per \$1.

Falling exchange rates increased the attractiveness of exporting, as opposed to selling domestically. A lower exchange rate meant a Chilean exporter received a larger number of pesos for his product. It also boosted the prices of imports into Chile.

From at least 1983 through 1987, Chile maintained a positive balance of trade, both for all goods and services and for agricultural products.

Aside from favoring a market-oriented economy, the government has played a small direct role in supporting the fruit sector. It has cut red tape to a minimum. All required reports and documents are kept relatively simple and accessible to medium-sized exporters.

The government examines, through the ministry of foreign affairs, foreign regulations regarding fertilizers, pesticides, postharvest treatments, and labeling standards. Then, through export committees of the ministry, the information is spread among exporting companies and growers.

Chemical residue and labeling standards that will meet the regulations of all or most countries Chile exports to are recommended. By helping growers and exporters to conform to international regulations, the government facilitates fruit exports.

### **Exporting Companies Work With Growers**

Fruit growers are free to choose an exporting company to market their fruit. One-year contracts are the norm, so growers can readily change companies. Generally the companies provide technical assistance and financing.

Exporting companies usually provide university-trained field personnel to visit growers regularly to help solve production problems. These consultants play a role similar to that of U.S. extension service agents.

For financing, the exporting companies usually negotiate lines of credit for growers with the banks. Terms and early availability of the credit dominate growers' choice of an exporter.

An exporting company may represent 1 to 300 growers. The 10 largest exporting companies handle about 80 percent of the exported volume of fruit. The 20 largest companies handle 90 percent of the volume. There are 200-250 exporting companies.

Exporting companies send the fruit to a receiver in the import market. There are typically one or two receivers in each market. A company normally ships to 10 or 20 receivers worldwide. Receivers sell the fruit to supermarkets and other retail outlets.

Generally, a grower is paid in advance a percentage of the price that the exporting company assumes it can get for the fruit. The company then sells at the highest possible price and charges a commission. Receivers go through the same process. Growers get final payment 4-6 months after selling the fruit to exporters. [Amy Sparks (202) 786-1885]

## **GATT Update: A New U.S. Proposal**

In late October, the U.S. submitted a comprehensive proposal for agricultural trade reform at the Uruguay Round of the GATT negotiations. The goal is to substantially improve the global environment for agricultural trade.

The Uruguay Round was kicked off in 1986 with the Punta del Este Declaration, which said "negotiations shall aim to achieve greater liberalization of trade in agriculture and bring all measures...under strengthened and more operationally effective GATT rules and disciplines."

Since then, many proposals and counter-proposals have been made. The U.S. submitted a series of papers leading up to the recent proposal. In 1987, the U.S. proposed that all trade-distorting subsidies and import barriers be eliminated from agriculture and that all sanitary and phytosanitary regulations (covering animal and plant health and food safety) be harmonized over a 10-year period.

Progress made in the Uruguay Round led to an agreement at the midterm review in April. The agreement set a goal of "substantial progressive reductions in agricultural support and protection...resulting in correcting and preventing restrictions and distortions in world agricultural markets."

The midterm review marks the first time that major trading nations have agreed to negotiate substantial cuts in agricultural intervention. Nations have until this month to introduce their specific suggestions for meeting this objective.

The U.S. was first to put out a comprehensive proposal. Other comprehensive proposals may also come from the EC, Japan, the Cairns Group (a group of 13 agricultural exporters, including Canada, Australia, New Zealand, and Brazil), and other countries. The proposals will form the basis of the negotiations for the remainder of the Uruguay Round, which runs through December 1990.

### **U.S. Wants To Extend Manufacturing Trade Rules to Agriculture**

The U.S. proposal would extend the rules governing trade in manufactured products to agriculture. Agriculture has been

largely exempt from the GATT rules and disciplines that cover industrial goods. The goal is to move international agricultural markets and trade of the GATT nations firmly and progressively toward a market-oriented environment.

The U.S. proposal would not eliminate government support of agriculture, but would redirect policies so that trade-distorting effects are minimized. The orientation is toward protecting farm income and away from subsidizing exports and barring imports.

The U.S. proposal has four sections: (1) import access, (2) export competition, (3) internal support, and (4) sanitary and phytosanitary measures. Since national policies in these areas are often related, the proposal offers an integrated approach to moving toward free trade.

#### ***Tariffication Could Open Markets***

Earlier U.S. proposals in both 1988 and 1989 suggested easing the transition to free trade through tariffication. Tariffication means replacing nontariff trade barriers with equivalent tariffs, and then negotiating down the tariffs (see page 34 of the September *Agricultural Outlook* for more on the concept).

The current U.S. proposal would convert all trade barriers into bound tariffs that would be progressively reduced to either zero or low levels over 10 years. Tariffs bound under a GATT negotiation cannot be raised or offset by higher trade-distorting subsidies without providing compensation to trading partners.

To ensure an orderly transition and some access for imports, all countries would go through a tariff-quota stage. During the transition, initial quotas would be set either at a recent level of imports, or at a negotiated level in cases where severe import restrictions have been in effect. Imports in excess of the quota levels would be allowed.

These excess imports would be subject to a higher tariff that initially provided the

same protection as the old nontariff barriers. These tariff rates would also be bound under GATT and substantially reduced over 10 years. To prevent a surge in imports, a safeguard provision based on a volume trigger would allow for a temporary increase in tariff rates when imports reached a prenegotiated level.

The quotas would be enlarged during the 10-year period. So, only zero or negligible tariffs would remain after 10 years.

Another goal of the U.S. proposal is to eliminate export subsidies in 5 years. The standard rules and disciplines that now apply to trade in industrial products would be extended to agricultural trade. While both subsidies and export tax differentials would be phased out, an exemption would be granted for bona fide food aid.

Export prohibitions and restrictions, which sometimes are applied in cases of tight domestic supplies, would be banned beginning in 1991.

#### ***Administered Prices To Go***

Under the U.S. proposal, fundamental changes in nations' internal support policies would be required. Policies transferring funds to agricultural sectors would be classified into one of three categories based on how much they distort trade:

- Policies judged to be the most trade distorting, such as administered price policies, would be phased out over 10 years.
- Policies judged to have less trade-distorting effects, such as input subsidies generally available to all producers, would be brought under new GATT disciplines. Reductions would occur over 10 years and would be based on an aggregate measure of support.
- Policies having minimal trade-distorting effects, such as disaster programs, could continue without new GATT disciplines.

#### ***Dispute Settlement Procedure for Health and Food Safety Issues***

While sanitary and phytosanitary regulations play a critical role in protecting a nation's food supply, they often have been used as disguised trade barriers. So, the October U.S. proposal seeks to establish an accepted process for settling trade disputes involving food safety, animal and plant health issues, and harmonization of standards.

The GATT rules relating to these issues would be amended so that the process of notification, consultation, and dispute settlement would be undertaken on the basis of an international scientific consensus and on the principle of equivalency (see the special article on the EC in this issue).

Settling disputes would be encouraged through informal consultations, especially those under the auspices of international technical organizations such as the Codex Alimentarius, the International Plant Protection Convention, and the International Office of Epizootics. Where informal consultations could not resolve a dispute, recourse to a formal GATT-sponsored dispute settlement process would be possible.

#### ***Reforms To Improve Global Resource Allocation***

According to the Organization of Economic Cooperation and Development (OECD is a group of developed nations that promotes world economic growth and trade), agricultural domestic and trade policies cost taxpayers and consumers of the industrial countries an estimated \$275 billion a year.

Many of today's agricultural policies in GATT countries were developed when world markets were less integrated and were focused largely on domestic concerns. With the growing integration of world commodity and financial markets, the U.S. and many other countries have recognized the need to reassess these policies.

So, the U.S. proposal reflects the belief that not only consumers and taxpayers, but also agricultural producers in the U.S. and elsewhere, will benefit from a system that is based on free trade rather than on protectionism. [Larry Deaton, Matt Shane, and Lee Ann Stackhouse (202) 786-1610]





## General Economy

### Forecasting 5 to 8 Years Out

General economic indicators point to slowing real economic activity in the near term, with weakness visible in the manufacturing sector. Inflation, however, seems to be slowing as well, and interest rates are drifting down. The latter two developments are likely to continue, and bode well for further expansion over the next 6-12 months.

But, because it may take some time for lower interest rates to stimulate the economy, slower growth may prevail for another quarter or so.

Analysts this year have entertained sometimes contradictory macroeconomic outlooks for 1989 and 1990, prompting renewed questions about the usefulness of macro outlooks generally. The broad spectrum of recent macro outlooks does not reflect poor forecasting; it reflects heightened uncertainty surrounding the current situation.

The economy is now in a short-run transition to slower growth. And, since transitions are harder to forecast than periods without major shocks or policy shifts, analysts generate a wider range of forecasts.

### *Opposing Forces Cloud Short-Term Outlook*

The natural slowing from an export-led boom in 1987 and 1988, and the tighter money policy that began in mid-1988 to forestall inflation, set up cross-currents that continue to cloud the 1990 outlook. Crude oil price hikes earlier this year compound the difficulty, as analysts try to distinguish short-term price surges from longer term, underlying inflation trends.

Through the first half of the year, tighter monetary policy, higher (though possibly temporary) inflation, and slower real growth provided equally probable scenarios for rising or falling interest rates.

Monetary tightening is generally associated with rising interest rates, but a successful cut in inflation is eventually associated with lower interest rates. Thus, projecting rising or falling interest rates depends on predicting when the effect of lower expected inflation and a slower growing economy outweighs the effect of monetary tightening.

With much of analysts' effort devoted to monitoring short-term developments and making short-term forecasts, and the general perception that macroeconomic forecasts are frequently wide of the mark, the public often gives longer term forecasts little credence. Yet because trends are easier to predict than temporary changes, longer term forecasts may be more accurate.

### *Long-Term Outlook: Lower Interest Rates, Higher Exports*

The nexus of several developments point to the following 5- to 8-year outlook:

- real GNP likely will grow around its 30-year average annual rate of 2.8 percent,
- inflation will tend to be below the 5-percent average rate of the last 10 years, and
- interest rates probably will drop slightly.

The large postwar baby-boom population is now entering the 45-64 age bracket. Because people in this age group tend to

save more of their income than do other people, some analysts suggest that by 1995 the savings rate will rise back to its 8-percent average of the 1970's. (The rate averaged 5.4 percent in the 1980's.) So, growth in consumer spending likely will be slower than growth in personal income.

Since rising personal savings would increase the supply of loanable funds, this would exert downward pressure on interest rates.

The trade deficit is likely to shrink, coloring the longer term outlook. U.S. exports of goods and services probably will grow faster than imports. Moreover, trade surpluses are needed in the future to pay off the foreign debt already incurred to finance earlier trade deficits.

The demand for U.S. exports depends primarily on the exchange value of the dollar and how quickly major trading partners grow. Likewise, U.S. consumer spending, business spending on new plants and equipment, and the value of the dollar largely determine imports. A lower valued dollar tends to increase U.S. exports and dampen imports, and foreign growth in excess of U.S. growth also would tend to expand U.S. exports faster than imports.

A combination of a lower valued dollar and faster foreign growth likely would eliminate the trade deficit over the next 4-5 years without the necessity of a U.S. recession. Some analysts have suggested that a 10- to 15-percent decline in the inflation-adjusted value of the dollar over the next 5 years, plus a foreign growth rate consistently about half a percentage point faster than the U.S. rate, could erase the trade imbalance.

### *Communist Bloc Developments and Europe 1992 Could Affect Outlook*

Recent global political developments and the Europe 1992 drive for EC economic integration could have long-lasting effects on U.S. trade.

The move toward greater political liberalization in the centrally planned economies could expand markets for U.S. products, either directly or by increasing growth in U.S. trading partners. In 1989,

trade with the centrally planned economies accounted for only about 1.8 percent of U.S. merchandise trade.

At the same time, EC integration is likely to increase growth in Western Europe, which accounts for about 25 percent of U.S. merchandise exports.

Accelerating U.S. exports will boost domestic investment and output growth. Business plant and equipment spending is likely to be robust if interest rates slip and export demand puts pressure on capacity.

### ***Federal Spending Dominated By Budget Deficit***

Attempts to reduce the relatively high federal deficit are likely to continue to dominate fiscal policy over the longer term. While the deficit has fallen from \$221 billion in fiscal 1986 to \$152 billion in 1989, widespread dissatisfaction with the pace of improvement remains, highlighting the seriousness of the federal commitment to reduce spending.

Since the passage of the Gramm-Rudman-Hollings deficit reduction plan, federal purchases of goods and services in real terms have fallen at a 0.5-percent annual rate. That is down sharply from the 4.6-percent growth rate during 1980-85, when the deficit soared.

For the macroeconomic outlook, less growth in federal government spending suggests less stimulus to the economy through federal employment or federal purchases of goods and services than in previous years. At the same time, however, a smaller budget deficit could cut interest rates, prompting increases in private spending.

### ***Monetary Policy Targets Inflation***

Federal Reserve actions over the last year confirm a strong anti-inflation stance, and members of Congress have recently called for the Fed to commit to a zero-inflation target. Should this stance become entrenched, it could have profound macroeconomic impacts.

Sustained tighter monetary policy likely would lower the underlying inflation rate. Lower underlying inflation would

tend to bring down nominal interest rates, since they include an expected inflation premium.

Furthermore, greater certainty about both monetary and fiscal policy could lead to falling inflation-adjusted interest rates. Uncertainty about macroeconomic policy tends to add a premium to interest rates to compensate lenders for a possibly changing macroeconomic environment. Relatively predictable policies could eliminate this premium.

### ***Ag Exports Would Rise, Costs Fall***

Agriculture would benefit under this longer term outlook. Agricultural exports likely would rise with a slowly falling real exchange rate and faster foreign growth. On the cost side, lower interest rates would help to hold down farmers' interest expenses. Lower rates of underlying inflation should help to hold down wages that farmers pay and the cost of buying farm equipment and chemicals.

One major risk to this macroeconomic outlook would be a sharp runup in crude oil prices. Some analysts argue that such an increase becomes more likely as oil demand rises. In the U.S., for example, oil imports grew 11.7 percent between 1986 and 1989, in contrast to an 8.3-percent average annual decline in the first half of the decade.

The Department of Energy projects almost \$29 per barrel by 1995, well above the current \$17. These increases would put upward pressure on agricultural costs, and could perhaps force the Fed to run a tighter monetary policy than would otherwise be necessary, bringing higher interest rates. *[Elizabeth A. Mack and R.M. Monaco (202) 786-1782]*



## **Resources**

### **Crop Area Rose 14 Million Acres This Year**

Cropland used in 1989 for crops—including land harvested, failed, and summer fallowed—is estimated at 342 million acres, about 14 million above last year. Another increase is likely in 1990, reflecting strong prices, lower stocks, and relaxed acreage reduction program (ARP) requirements.

Prices of most crops other than wheat have receded from highs they reached because of the 1988 drought. But, prices are still above predrought levels. Moreover, ending stocks of most crops are expected to be down again this year.

U.S. cropland peaked at 387 million acres in 1981, after increasing to meet expanding export markets in the 1970's. No land was idled in farm programs in 1981.

Most of the reduction since then in cropland used for crops reflects idling of land under federal farm programs. Producers idled 59.5 million acres in annual programs and the CRP in 1989. For comparison, this amount equals about a third of all arable land in the European Community.

When idled acreage is added to cropland used for crops, the total has been relatively stable over time. It came to over 401 million acres in 1989, about 1 per-



cent below the 2 previous years and 1 percent above 1972.

### Acreage Up in Most Regions

Cropland used for crops in 1989 was higher than in 1988 in all regions except the Delta States, where it declined 0.8 million acres.

The largest gain—as in 1988—was in the Corn Belt, where federal programs idled 5.3 million fewer acres and cropland used for crops rose 6.0 million acres. Crop failure in the Corn Belt was estimated to be 0.3 million acres more in 1989 than in 1988. Cropland increases in the Corn Belt this year were primarily for corn (3.1 million acres), wheat (1.3 million), and soybeans (1.0 million).

Cropland idled by annual federal commodity programs (as opposed to longer range government programs) declined from 53.2 million acres in 1988 to 29.9 million in 1989. Annual programs took fewer acres out of production this year because of lower ARP's for wheat, corn, grain sorghum, and barley, and the absence of paid land diversions.

However, an additional 5.1 million acres were bid into the 10-year Conservation Reserve Program (CRP) for 1989; 3.4 million of these were base acres of program crops.

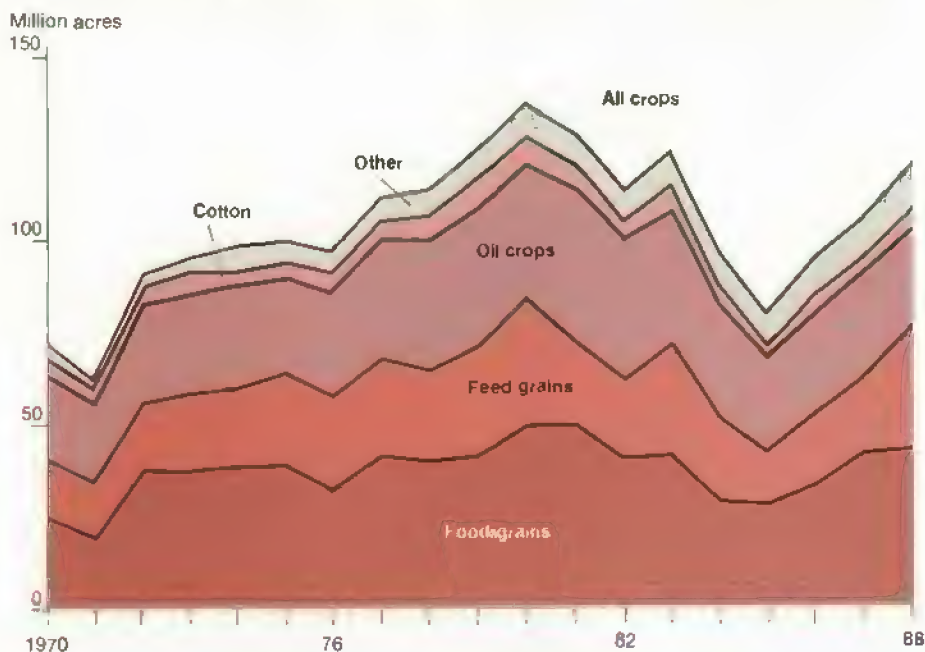
The 59.5 million acres idled under all federal programs in 1989 was the smallest area set aside since 1986. For 1990, an additional 1 million acres have been bid into the CRP. This CRP participation total does not include the August 1989 signup, for which data are not yet available.

### Acreage Equivalent of Exports Has Risen Again

Exports from crop year 1988/89 absorbed the production from 121 million acres, up more than 14 percent from 1987's 106 million acres. The increase is largely due to the reduced 1988 base of the comparison (lower crop yields resulting from the drought required more acres to maintain exports), and not due to gains in export volume.

Export volume is actually down slightly from 1987/88. The acreage total is substantially below the high of 137 million acres absorbed by exports in 1980.

### Acreage Taken by Exports Continues To Recover



Cropland Used for Crops Down 12 Percent From 1981 Peak

Region	1981	1988	1989 1/	Change	
				1981-89	1988-89
Million acres					
Cropland used for crops					
Northeast	13.6	11.8	11.9	-1.7	0.1
Lake States	40.3	33.4	35.3	-5.0	1.9
Corn Belt	87.5	76.2	82.2	-5.3	6.0
No. Plains	93.5	85.2	88.3	-5.2	3.1
Appalachian	19.4	16.0	16.7	-2.7	0.7
Southeast	14.8	10.4	10.9	-3.9	0.5
Delta States	19.6	15.8	15.0	-4.6	-0.8
So. Plains	38.0	28.2	28.4	-9.6	0.2
Mountain	38.1	33.3	34.8	-3.3	1.5
Pacific	22.2	17.6	18.1	-4.1	0.5
United States 2/	387.0	327.9	341.6	-45.4	13.7
Cropland idled 3/					
Northeast	0	0.9	0.6	0.6	-0.3
Lake States	0	6.8	4.6	4.6	-2.2
Corn Belt	0	13.9	8.6	8.6	-5.3
No. Plains	0	20.8	14.9	14.9	-5.9
Appalachian	0	3.0	2.3	2.3	-0.7
Southeast	0	3.2	3.0	3.0	-0.2
Delta	0	3.1	3.0	3.0	-0.1
So. Plains	0	12.0	10.3	10.3	-1.7
Mountain	0	10.2	9.0	9.0	-1.2
Pacific	0	3.8	3.1	3.1	-0.7
United States 2/ 4/	0	77.6	59.5	59.5	-18.1

1/ Preliminary. 2/ Excludes Alaska and Hawaii. Because of rounding, regional data may not add to U.S. totals. 3/ Idled under federal acreage reduction programs. Includes cropland idled by 0/92 and 50/92 programs. Also includes 24.5 million acres enrolled in the Conservation Reserve Program in 1988 and 29.6 million acres enrolled in 1989. Another 1.0 million acres are enrolled in the 1990 CRP as of the February 1989 signup. 4/ This total exceeds the base acreage of program crops idled by 8.8 million nonbase acres bid into the CRP in 1988 and by 10.8 million in 1989.

U.S. agricultural exports in fiscal 1989 likely were 147 million tons, down about 1 percent from 1988, but up 34 percent from 1986. Grains accounted for most of the increase. Exports in fiscal 1989 probably equaled the production from 41 percent of all acres harvested in crop year 1988/89, up from 35 percent a year earlier.

### ***Crop Area Expected Higher in 1990***

With somewhat lower target prices for program commodities, participation in the 1990 commodity programs could decline slightly from a year earlier.

ARP requirements for the wheat program have been reduced from 10 percent of base acreage in 1989 to 5 percent. In addition, a special option under the 1990 wheat program was recently announced; it allows producers to plant up to 105 percent of their wheat base by giving up part of their deficiency payments.

For feed grains, the 1990 program requires a 10-percent ARP for corn, grain sorghum, and barley, the same as in 1989. The 5-percent ARP for 1990 oats is also unchanged, but the oats and barley bases have been separated. In addition, there will not be a paid land diversion program for the 1990 feed grain crop. [Arthur Daugherty (202) 786-1422]

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## **Transportation**

### **Distribution System Under Stress**

The U.S. agricultural distribution system is generally responsive to shifts in the volume and patterns of demand. Some analysts believe that the system provides a strong competitive advantage in international grain marketing. But the Soviets' recent corn purchase likely will strain the system, at least through January.

#### ***Excess Capacity a Problem In Recent Years***

Excess capacity has characterized both U.S. railroads and barge lines. Between 1981 and 1987, railroads carried, on average, between 17,700 and 34,200 cars of grain per week. Barges averaged between 1.2 and 5.5 million tons per month. These fluctuations reflect changing patterns in demand for export grain.

For the most part, corn destined for Europe or Africa is shipped by barge to New Orleans. A majority of the wheat, (chiefly hard red winter varieties) moving to the same destinations first goes by rail to the Texas ports. In total, the Gulf ports usually account for 60-70 percent of U.S. grain and oilseed exports.

Corn exports to Asia frequently move through New Orleans, while Asia-bound wheat is sent by rail to Pacific Coast ports. In recent years, as U.S. markets in Asia improved, both corn and wheat have increasingly gone by rail to the Pacific Northwest.

#### ***Soviet Purchase Promises To Strain Distribution System***

The Soviets' 8-million-ton corn purchase is scheduled for delivery between late October and January, with most scheduled for November to December. Normally, most of this grain would move down the Mississippi River and its tributaries by barge for loading at Louisiana ports.

But, the volume purchased approximates the 60-day loading capacity of Louisiana export elevators. Since exports of grains and oilseeds to other destinations are also anticipated during that period, some shipments probably are being diverted to other ports. By mid-November, rail deliveries to North Atlantic ports rose 210 percent from September. Rail shipments to Gulf and Pacific ports rose 61 and 41 percent, respectively, in the same period.

Moreover, since June 1988, the Mississippi River system has been hampered by drought-induced low water. Water at St. Louis in 1988 averaged 54 percent below average 1944-88 levels. Through this October, St. Louis levels have been down 60 percent from 1944-88. While shallow water has hampered navigation, during 1988 barges moved an average of 3.2 million tons per month, and the same average has prevailed through October 1989.

The degree to which navigation is hampered by low water is not directly proportional to the reduction in water depth. In May 1989, barges carried 4.3 million tons of grain with water depths at St. Louis 71 percent below the 1944-88 average.

The U.S. Army Corps of Engineers expects to make the new 1,200-foot-long lock below Alton, Illinois, operational in mid-December. Within a week or two following the opening of the new chamber, the Corps believes the 5- to 7-day backlog of tows that now exists above the old lock will dissipate.



In early January, the Corps plans to close the new lock for 6 days to complete construction of the complex. Upon reopening, the new structure will have twice the capacity of the old lock.

### ***Shipment Rates Skyrocket***

This October, spot rates for barge shipment from Peoria to New Orleans averaged \$10.49 per ton, 78 percent above a month earlier and a record increase for the period. This jump reflects both a 30-percent increase in volume to 3.9 million tons in October and anticipated shipments during November to the Soviet Union.

Since grain marketing firms typically purchase transportation services for future months, some barge shipments to the USSR will move at earlier, lower price levels. Thus, the October jump in spot rates probably overstates the rise in average costs.

Rail volumes likely will climb also. Great Lakes and Pacific Coast ports probably will benefit as grain is diverted from more usual channels. The cost of transporting grain is likely to rise, resulting from both increased barge rates and higher costs of shipments to railroads. Rail rates are normally well above barge rates for comparable movements. [T.Q. Hutchinson (202) 786-1840]



## **Food and Marketing**

### **Food Price Growth To Slow in 1990**

Retail food prices for most items are leveling off during the second half of 1989. This trend will continue into 1990. Retail meat prices will rise only slightly because of large total supplies. Poultry prices probably will average below 1989. The dairy Consumer Price Index (CPI) is expected to average about the same as in 1989, as milk production increases.

Demand for cereal products will continue strong, but the proliferation of new products will slow. Vegetable production likely will expand, and prices will be more stable.

A slowdown in the overall inflation rate and slower growth in disposable income will help to hold food prices down in 1990. Consequently, food prices are expected to rise 3 to 5 percent for the year.

### **Food Prices Up Nearly 6 Percent in 1989**

The rise in retail food prices this year is bigger than in recent years. When data are available for all of 1989, the CPI for food is expected to average nearly 6 percent above last year. This will be the largest increase since 1981.

Prices of food purchased in grocery stores will average slightly more than 6 percent above 1988, while food sold in restaurants and fast food establishments will average nearly 5 percent higher. Food prices in 1989 have helped pull up the general inflation rate; the CPI for all items may rise by 5 percent.

Farm prices, costs for processing and distributing foods, and consumer demand are the major influences on food prices. All have played a role in pushing prices higher this year.

Tighter supplies of some commodities, partly because of the 1988 drought and partly because of weather disruptions in 1989, pushed the farm value of food up about 7 percent.

A similar increase in the cost of processing and distributing foods reflects higher costs for energy, packaging, transportation, and labor. Consumer demand has been pulled up by greater real disposable personal income; income grew at an annual rate of nearly 3 percent for the last 2 years.

### **Beef Prices Substantially Higher**

Per capita red meat consumption for 1989 is estimated to be 2 percent below 1988. The decrease reflects smaller beef production; pork production has averaged about the same as in 1988.

Retail prices for beef, however, have been up even more than the production drop would seem to indicate, averaging about 6.5 percent higher than in 1988. Increased real disposable personal income has helped strengthen demand for beef.

Still, the beef price increases have been larger than might be expected. Analysts speculate that a couple of factors could be supporting stronger demand for beef.

First, beef has undergone product changes to enhance its image. The most obvious are the closer fat trimming and more boneless cuts. These changes have increased the value of the product, and consumers are willing to pay higher prices for it. Second, promotion of leaner beef has helped to improve the image of beef as a healthy food and reduced the fear of cholesterol.

### ***Per Capita Poultry Consumption Up 14 Percent Since 1985***

Poultry production has been rising at a 4- or 5-percent annual rate for several years. Annual per capita consumption of poultry has increased about 14 pounds since 1985. It is greater poultry supplies that have generated record-large total meat supplies last year, this year, and likely next year too.

While production has been increasing, particularly for broilers, so have prices. The CPI for all poultry this year is expected to average 7 percent above last year.

Higher chicken prices in grocery stores have stemmed from strong demand by fast food chains. Fast food firms have been expanding their menus, using new chicken items to add variety. Promotion of chicken items has been used extensively in this fiercely competitive market, and consumer acceptance has been strong.

When a firm is committed to a promotion program, it must be sure the product will be available, so chicken supplies are contracted for well in advance. Demand by the fast food firm that is running the promotion becomes insensitive to price changes, and broiler prices are often bid significantly higher.

These are the market conditions that grocery stores have had to cope with for the past several summers. The consequent price spiral may finally have ended, however, prices have been declining in the second half of 1989.

### ***Dairy Prices Took Off In 1989***

Retail prices of dairy products have remained relatively stable for the past several years, rising 2 to 3 percent annually. But, this year the CPI for dairy products will climb at a rate nearly twice that of the past 2 years. Much of the 1989 price increase will be evident in the fourth quarter.

The bulk of the price gain can be attributed to production declines caused by poor forage quality, a carryover from the 1988 drought. Greater demand for cheese at a time when stocks were low,

plus strong export demand for nonfat dry milk, boosted prices and signaled producers to increase output.

The drop in milk production, however, meant milk supplies for manufacturing were limited, and fluid milk prices rose also. As a result, the CPI for dairy products in 1989 will average about 6 percent above 1988.

### ***A Plethora of New Breakfast Cereals, But at Higher Prices***

The CPI for cereals and bakery products has risen sharply in 1989, about 8.5 percent from 1988. The strongest increase has been for breakfast cereals. Growing consumer demand for high fiber and other nutritional benefits in breakfast cereals has manufacturers scrambling to meet the new requirements.

A quick glance at the cereal shelves in the grocery stores will reveal a plethora of new breakfast cereals, all claiming high fiber and added nutrition. Many of these cereals have added ingredients such as dried fruits and nuts. The added ingredients increase total manufacturing costs.

Manufacturing and distribution costs account for about 90 percent of the price consumers pay for cereals and bakery products. Input prices for packaging, labor, energy, and advertising have risen this year. With input prices up and more of these inputs being used, particularly advertising and promotion, basic costs are pushed higher and are reflected at the retail level.

### ***Fresh Vegetable Prices Pushed by Low Potato Stocks***

Cold weather in California and Mexico and a late freeze in Florida slowed fresh vegetable shipments in the first half of 1989, keeping prices high through June. Potato stocks also were tight because of the 1988 drought; potato prices have been more than 40 percent above a year earlier. Yet salad-type vegetable supplies have returned to more normal levels, and prices have fallen.

Despite greater potato production this year, fresh supplies likely will remain tight, as processors use much of the added production to rebuild frozen and dehydrated stocks. As a result, fresh

potato prices will remain strong through next year.

Processed vegetable prices this year have been averaging more than 12 percent above 1988. The 1988 drought shortened supplies of canning sweet corn, peas, and green beans. Supplies of canning tomato paste products also were in short supply.

While acreage for processing vegetables increased considerably this year, much of the added production will go for filling the market pipeline, and stocks of some vegetables may take another year to return to normal. Some prices, therefore, likely will remain strong for another year. [Ralph Parlett (202) 786-1870]

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### ***Upcoming Releases From The Agricultural Statistics Board***

The following list gives the release dates of the major Agricultural Statistics Board reports that will be issued by the time the January/February *Agricultural Outlook* comes off press.

#### ***December***

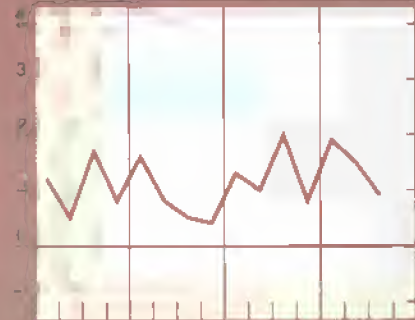
- 1 Egg Products
- 4 Poultry Slaughter
- 6 Dairy Products  
Celery
- 12 Crop Production
- 13 Turkey Hatchery
- 15 Milk Production  
Vegetables  
Potato Stocks
- 18 Cattle on Feed
- 20 Catfish
- 21 Cold Storage  
Eggs, Chickens, & Turkeys  
Livestock Slaughter
- 28 Peanut Stocks & Processing
- 29 Agricultural Prices



# Food and Marketing Indicators

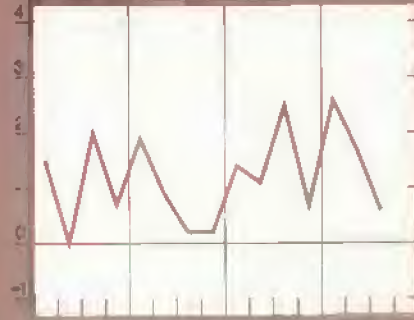
CPI: Total food<sup>a</sup>

Percent change



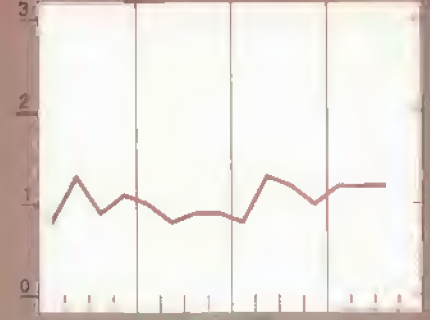
CPI: Food at home<sup>a</sup>

Percent change



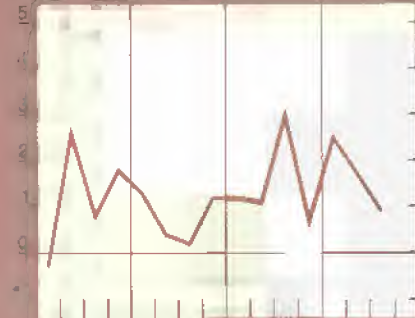
CPI: Food away from home<sup>a</sup>

Percent change



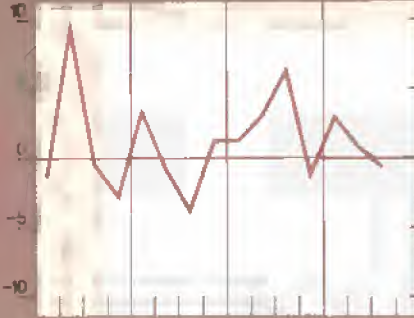
Retail cost of food<sup>1</sup>

Percent change



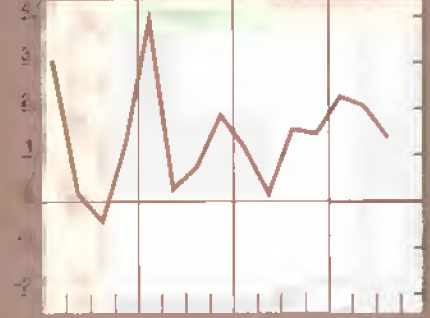
Farm value of food<sup>1</sup>

Percent change



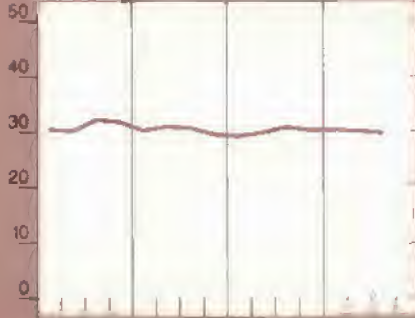
Farm-retail spread<sup>1</sup>

Percent change



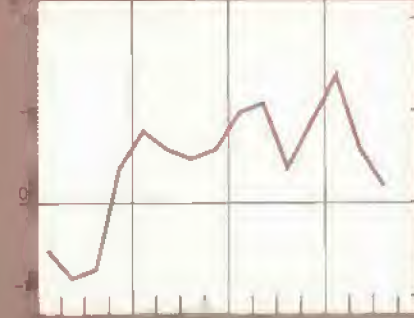
Farm value/retail cost<sup>1</sup>

Percent change



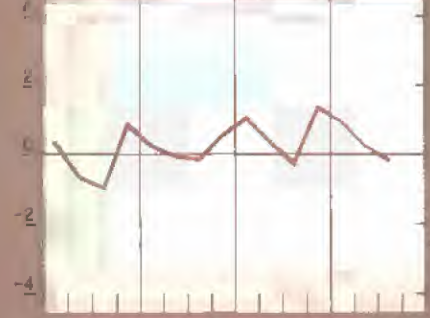
Food marketing cost index<sup>2</sup>

Percent change



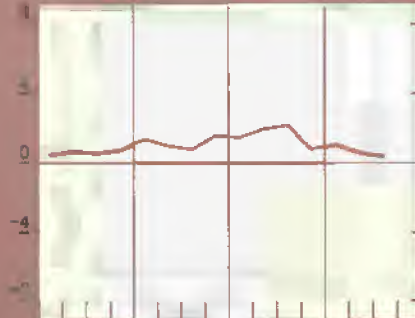
Index of hourly earnings<sup>3,4</sup>

Percent change



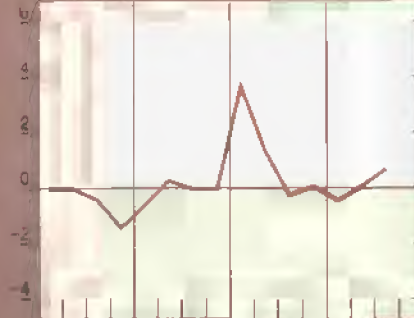
Index of packaging prices<sup>4</sup>

Percent change



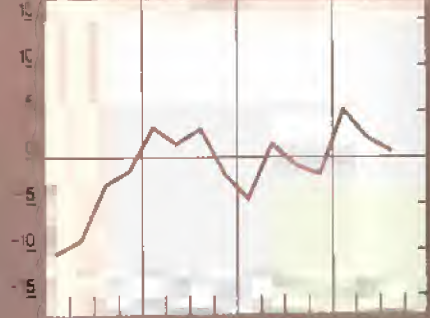
Index of rail freight rates<sup>4</sup>

Percent change



Index of energy rates<sup>4</sup>

Percent change



<sup>a</sup>CPI unadjusted. <sup>1</sup>Index based on market basket of farm foods. <sup>2</sup>Index of changes in labor, packaging, transportation, energy, and other marketing costs in food retailing, wholesaling and processing. <sup>3</sup>Component of food marketing cost index. <sup>4</sup>Component of food marketing cost index. All series expressed as percentage change from preceding quarter, except for "Farm value/retail cost" chart.

## Special Articles



### Soviet Agriculture In the 1990's and the U.S.-USSR Grain Agreement

**T**he U.S. and the USSR are to begin discussions this month on a new long-term agricultural trade agreement. The talks come at an important juncture for both countries.

Because the Soviet Union is such a large and sometimes erratic grain customer, its purchases strongly affect U.S. grain stocks, trade shares, prices and, ultimately, farmers' incomes. And after 2 years of uneven weather, U.S. stocks are down. So markets are extremely sensitive to speculation about Soviet purchases.

For the USSR, the discussions come at a politically delicate time, as General Secretary Mikhail Gorbachev attempts to reform Soviet agriculture amid a move toward a more democratic form of government.

While the success of the Soviet agricultural reforms remains to be seen, the impact likely will be small over the next several years, and not seriously affect the total amount of grain the USSR needs to purchase on international markets.

#### What Problems Face Soviet Agriculture?

The USSR has considerable potential to increase agricultural production in light of its currently low productivity. U.S. spring wheat yields are a third higher than the Soviets'.

Corn yields in the northern U.S. and in Canada are twice those in the Ukraine. Sunflowerseed yields in Czechoslovakia and Hungary are a third higher than in the USSR. High rates of postharvest losses—25 percent or more for many commodities—further cut the output of the Soviet food economy. On the livestock side, Soviet animal productivity is about half that of the U.S.

Low productivity means that the USSR pays a high price to feed its 288 million citizens. The total agro-industrial complex employs over 30 percent of the workforce and receives over 30 percent of investment resources. Yet the USSR still spends over \$17 billion annually for agricultural imports, and grain imports paid for in hard currency will approach \$5 billion in 1989.

While Soviet caloric intakes are adequate, the food lacks the variety, quality, and convenience now in demand. The improvement in food supplies has not kept pace with income-driven demand, especially since the government maintains low retail food prices.

The Soviets estimate that food subsidies account for 18 percent of the state's total budgetary expenditures for 1989, about equal to the projected 1989 budget deficit. Meat and poultry account for about half the subsidies, and milk products another third.

Rather than relying on much higher retail prices to cool off food demand, the Soviets are concentrating on supply policies and programs. The supply policies focus on four areas—agricultural technology, farm management, rural infrastructure, and postharvest activities.

The Soviets are trying to improve agricultural technology and farming practices by increasing direct ties among farms, agricultural input industries, and research institutes. They also are trying to develop wholesale trade in agricultural inputs and effective agricultural extension programs.

#### Will Producers Sell More to State For Hard Rubles?

The most recent supply-oriented program authorizes the state to pay "hard" rubles to farmers for certain above-average sales of high-quality wheat, oilseeds, and pulses. These rubles can be converted to internationally traded currencies such as the dollar and the mark and used for purchases from the West.

Officials, who expect farmers to grow and sell more of the desired crops in response, hope to save the state between \$640 million and \$1.1 billion by cutting the need to import. The hard currency thus saved would be budgeted to pay the farmers. Farmers could then use the hard currency to buy consumer goods and heavy equipment from outside the USSR.



The program is aimed at reducing on-farm feeding of high-quality wheat; an estimated 8-10 million tons thus would be sold to the state instead. Now, less than half of the wheat grown in the USSR is consumed by humans, and wheat comprises about 30 percent of the total grain fed to livestock.

Domestic price distortions probably encourage this feed use of quality wheat. The state pays the low-cost wheat-producing areas (where much of the high-quality wheat is grown) the lowest prices, 70-80 rubles per ton. Yet the state charges a uniform price of 200 rubles for mixed feeds throughout the country. Thus, farms in low-cost wheat-producing areas pay over two times more for mixed feeds than they receive from the government for high-quality wheat.

Moreover, the state mixed feeds are usually of poor quality and lack sufficient protein. Consequently, farm managers prefer to use wheat for feed rather than buy inferior, over-priced mixed feed.

Compounding the problem, state procurement prices for livestock products have increased several-fold in the past 20 years, often making livestock production more profitable than grain production.

### Soviet Farmers Are Skeptical

The current proposal for offering farmers convertible rubles comes on the heels of two earlier, largely unsuccessful programs that are still in effect. Both use higher soft ruble prices and in-kind sales to attempt to get producers to sell more grain and oilseeds to the state.

Their failure is due, in part, to the shortage of Soviet goods for producers to buy with the nonconvertible rubles. Furthermore, promises by the state of payments-in-kind (such as in tractors, trucks, cement, etc.) for sales of above-average volume of grain have often been broken.

The hard currency sales program began too late to affect 1989 production and has not succeeded in raising sales to the state so far. Farm managers remain highly skeptical of the new proposal, citing the unclear rules and procedures, out-of-reach targets, and excessive restrictions. For example, the managers say the amount of extra grain they need to buy a Western tractor is too high. They are also doubtful that they will be free to choose what goods they can purchase with their hard ruble accounts, and from whom.

Finally, producers of commodities not included in the measure, such as rye, oats, sugarbeets, and cotton, have already complained about the new policy.

### Soviets May Import Less Wheat, But More Corn and Protein Feed

The new program is designed to help the Soviets boost food supplies from domestic sources. If they successfully implement price and monetary reforms in the mid-1990's, this also will help to balance the Soviet food economy. The Soviets

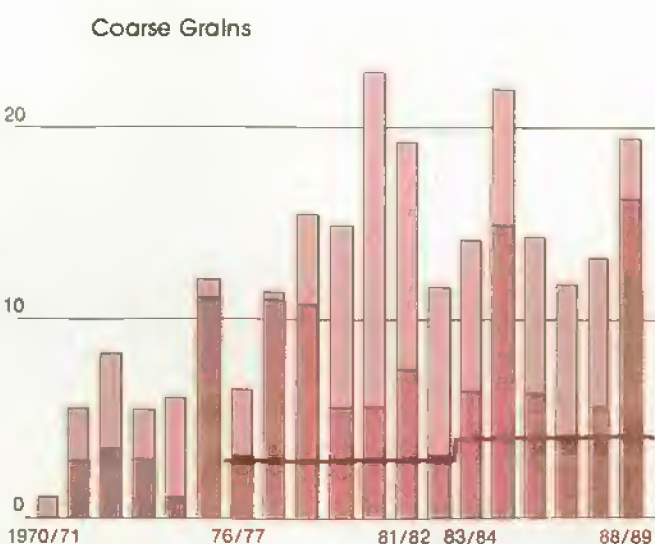
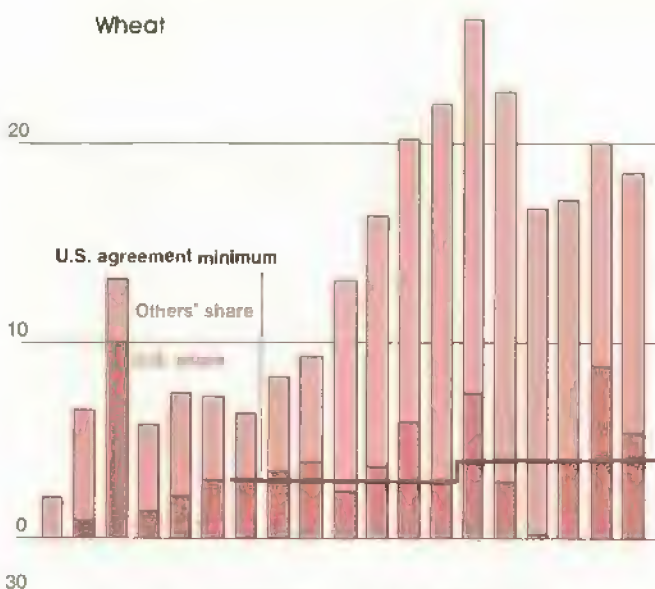
view the hard currency program as a means of reducing grain and oilseed imports by paying Soviet farmers for grain at prices below the cost of imported grain.

If farmers respond to the experiment (and if it is extended beyond 1990), they may expand wheat plantings at the expense of coarse grain or forage. However, they could increase supplies of milling wheat even without expanding wheat area—by using greater care in growing, harvesting, handling, and storing the wheat.

### Soviet Grain Imports, and U.S. Share, Show Wide Variability

Million metric tons

30



Unless farmers can improve feed rations and make more efficient use of feed supplies, the wheat diverted to the state may force farmers to purchase more mixed feeds from state resources. This might result in higher imports of coarse grains and protein feeds.

Another response might be for farmers to shrink total wheat area, instead concentrating on only the highest quality wheats. To remain qualified for the program, farmers would have to maintain total grain output, thereby necessitating increased coarse grain area.

Soviet imports of high-quality wheat may decrease if the new program serves as a real incentive for producers to feed less wheat on-farm and to increase sales of milling quality wheat to the state. This would come as welcome news to the Soviet leadership, and help address the growing, vocal opposition to importing wheat. A number of Soviet analysts view wheat imports as providing support to foreign over Soviet producers.

However, one Soviet analyst recently noted that he doubts imports of high-quality wheat could be completely eliminated at any time in the foreseeable future, if only because of the baking industry's need of it for blending purposes.

For oilseeds, the hard currency payments may increase production and help the government's mixed-feed industry raise the protein content of its rations. However, payments will not be able to boost production enough to eliminate the domestic protein feed shortage, estimated at 10-15 million tons in soybean meal equivalent.

The inadequately balanced feeds will continue to keep animal productivity and feeding efficiency below Western standards. Thus, the Soviets will be forced to maintain high requirements for feed grains, which they likely will be unable to fill domestically.

### **U.S. Is Major Western Supplier**

Continuing constraints on export earnings will limit growth of Soviet agricultural imports. More exports of quality goods and services, combined with the traditional exports of energy, gold, and arms, still will not be enough to cover the demand for food imports. Nor will sufficient financing likely be available to import enough other consumer goods, capital goods, and technology.

Most of Soviet agricultural imports are from other socialist countries, reflecting hard currency constraints and commitments to allies. Socialist countries account for 70 percent or more of Soviet imports of sugar, meat, fruit, and vegetables. Tropical commodities—coffee, tea, spices, and tropical fruits—are another large portion of Soviet agricultural imports.

Around 35 percent of Soviet agricultural imports are neither tropical commodities nor soft currency purchases. Of these, the U.S. now accounts for perhaps a third.

Since the mid-1970's, the U.S. has usually filled the leading share of Soviet agricultural imports from Western nations. Exceptions were in 1981, when the U.S. probably trailed Argentina and France, and in 1983, when France dominated.

From October 1988 to August 1989, the USSR trailed only Japan as a buyer of U.S. agricultural exports. Grains have accounted for more than half of the Soviets' hard currency agricultural imports since 1970. The U.S. has supplied about two-fifths of these imports during the last two decades, worth \$25 billion.

Since 1970, grains have accounted for over 60 percent of total U.S. exports to the USSR and over 85 percent of U.S. agricultural exports to the USSR. Soybeans and soybean meal together have accounted for another 10 percent.

An increase in U.S. agricultural exports to the USSR likely will take place either at the expense of other hard currency trading partners, or through countertrade, barter, or other means to deal with the nonconvertibility of the ruble. This reflects not only a lack of hard currency, but also the possibility that overall Soviet agricultural imports may not increase; they may even contract. Although there will be nooks and crannies where persistent and motivated Western businesses can find a niche, the Soviet market probably will not be a cornucopia for the next 5 or so years.

### **Grain Agreements Reflected Different Concerns**

The first 5-year U.S.-USSR Long Term Grain Agreement (LTGA) ran from fiscal 1977 through 1981, and was then extended for 2 more years. The agreement was negotiated when the U.S. was concerned about the inflationary effects of large and fluctuating Soviet purchases. In 1974 and 1975, before the agreement, the U.S. imposed moratoria on grain exports to the USSR.

Features of the first agreement included the following: (1) the Soviets were required to buy 6 million tons of grain, about equally divided between wheat and corn, each agreement year; (2) they could buy 2 million tons more without consultation; (3) the maximum of 8 million tons could be increased upon consultation; and (4) the U.S., in case its domestic supplies fell below 225 million tons, had an escape clause.

The second LTGA, originally covering fiscal 1984 through 1988, was extended through December 1990. When it was negotiated, U.S. stocks were high, world grain prices had fallen, and the USSR had proved to be a large, although still erratic, grain importer.



In the second LTGA, the minimum Soviet purchase of 9 million tons per year was to consist of 4 million tons of wheat and 4 million of corn. The remainder could be wheat, corn, soybeans, and/or soybean meal (with 1 ton of soybeans or soybean meal equal to 2 tons of grain). The maximum for wheat and corn combined was 12 million tons. As in the first agreement, the grain maximum could be raised after consultation. No maximum was set for soybeans or soybean meal.

Both agreements stipulated that Soviet purchases would be at the prevailing market price.

#### **For Soviets, New Agreement Would Steady Supply, But What About Price?**

The Soviet Minister of Foreign Economic Relations, K. Katushev, recently summarized Soviet perceptions of what grain agreements accomplish. Some of his conclusions run counter to U.S. perceptions about the agreements.

In rebutting a Soviet critic of grain agreements, Katushev wrote that the agreements protect the USSR from possible international grain supply disruptions and ensure the quality of grain imports. Moreover, he said that the agreements "...never define when specifically in any given year or even over a longer period of time, this grain will be purchased." Katushev also said that the negotiated terms have saved the USSR "...dozens and even hundreds of millions of rubles in freely convertible currency."

However, several Soviet economists argue that long-term accords have boosted the prices Soviets pay. In addition, the Soviet critics argue that the agreements undermine the pressure to modernize their agricultural sector.

If an agreement sets minimum guaranteed purchases high enough to force the USSR to stockpile in years of high production, the supplies could provide the Soviets a cushion in lean years. This would even out year-to-year import demand and contribute to price stability in the world grain markets. The security that an agreement provides might encourage the Soviets to allow their livestock economy to become more dependent on imported feedstuffs and to accelerate growth in domestic output of livestock products.

#### **U.S. Could Benefit From a New Agreement**

The U.S. could benefit economically from a new LTGA if the agreement:

- reduced the variability of Soviet purchases,
- improved information about Soviet trading intentions,
- increased total Soviet purchases,
- increased the U.S. share of total world grain exports, and
- provided the U.S. with a price advantage.

On the other hand, the economic benefits to the U.S. would be reduced if:

- the agreement (or the USSR's combined agreements with various exporters) did not cover most of Soviet import needs,
- the terms of the agreements were not kept,
- greater U.S. sales to the Soviets were offset by lower sales in traditional U.S. markets, as competitors who lost out in the Soviet market stepped up pressure elsewhere, or
- the agreement did not augment information about Soviet crop conditions and buying intentions.

#### **History of Agreements Is Checkered**

After the U.S. embargo in 1980, the Soviets entered into 5-year grain agreements with Argentina and Canada, which they subsequently renewed. The Soviets typically make 5-year bilateral trade agreements with socialist countries as well. The 1985 agreement with the People's Republic of China included sizable quantities of grain.

The bilateral agreements in total have covered only about 50 percent of the Soviets' annual average import requirements since 1981. Apparently, the Soviet agreements with Argentina and the U.S. have been less flexible about substitutions either between grains or between years.

The Soviets have not always fulfilled their grain agreements. The Argentine agreement has gone unfulfilled since the 1984-85 year ended. Moreover, the Soviets did not meet the terms in 3 of the 5 years under the current U.S. agreement.

In fiscal 1985 and 1986, they bought less wheat than required, and in 1987 they failed to reach the overall 9-million-ton minimum. And prior to USDA's Export Enhancement Program, the Soviets did not buy U.S. wheat for 2 years, citing high prices as the reason. *[Kathryn Zeimet and Christian Foster (202) 786-1621]*



## Liberalizing World Trade In Oilseeds

*This is the fifth in a series summarizing research on what could happen as negotiations under the GATT (General Agreement on Tariffs and Trade) move toward free trade in agriculture. Negotiators at the April review of the Uruguay Round agreed to "substantial progressive reductions in agricultural support and protection over an agreed period of time."*

*While there are adjustment costs involved in moving away from protectionism, both theory and research results suggest that the benefits of free trade outweigh the costs. But because there never has been free trade in agriculture, the findings in these articles are, of necessity, speculative. The results here come from research conducted by the Economic Research Service, universities, and international organizations. A longer, in-depth research report lies behind each article, and will be available from the authors.—Ed.*

**G**overnment intervention in oilseeds is substantially lower than it is for other traded commodities. As a result, phasing down worldwide government support and protection of agriculture would have a smaller impact on oilseed markets than on most other commodity markets, such as those for wheat or feed grains.

World trade in soybeans would increase slightly with liberalization, as certain high-cost producing countries, principally in the EC, reduced output and increased import demand. A small increase in U.S. soybean production would put downward pressure on global trading prices. U.S. production

would rise because farmers would convert some grain acreage; removing target prices for feed grains would make growing soybeans more attractive.

Because of the likely decline in EC production, prices and global volume traded probably would increase for vegetable oils and those oilseeds with higher oil content, such as rapeseed and sunflowerseed. Increased exports of these products to the EC would come from the U.S., Argentina, and Canada, and the major palm oil producers, Malaysia and Indonesia.

Globally, increased soybean crushing margins could reduce trade in meal as more crushing was done domestically in various countries. Domestic crushing operations would become more profitable.

In the U.S., lower soybean prices could cause producers' gross receipts to decline with freer trade. However, because per bushel costs probably would fall with the greater acreage, net incomes could rise. Small adjustments would occur in U.S. soybean complex exports: bean exports should increase, but meal exports probably would fall.

U.S. sunflowerseed growers would benefit from rising high-oil-product exports to the EC. In contrast, if existing support programs were phased out, some higher cost peanut growers probably would stop production, unless the government made support payments that did not distort trade.

### Producer Subsidies Vary With Region And Type of Oilseed Grown

Oilseed producers, globally, receive far less assistance than dairy, sugar, and grain producers, according to estimated producer subsidy equivalents (PSE's). PSE's, a means of comparing commodity subsidies and trade barriers across nations, are defined as the income subsidy that would be needed to compensate producers for removing support provided through government programs and policies.

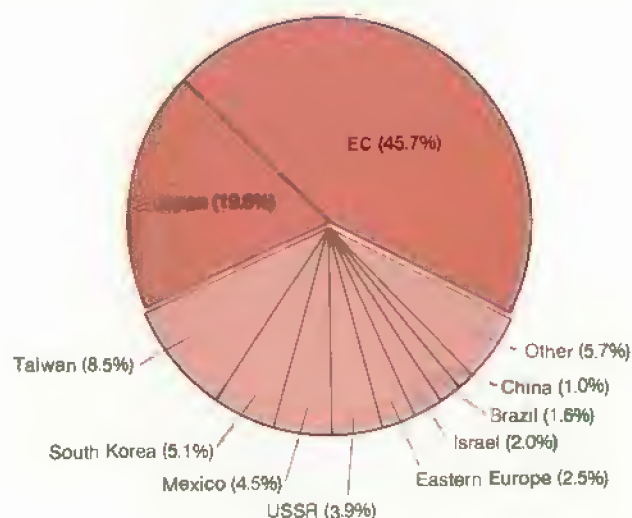
The PSE's for oilseeds show that the level of intervention significantly varies from region to region and from oilseed to oilseed. The EC is the largest import market for oilseeds and oilseed products that exhibits a great degree of intervention.

Of all the past rounds of GATT regulations, the Dillon Round (1960-61) most affected global oilseed trade. At that time, EC negotiators agreed to exempt oilseeds and oilseed meal from tariffs. As a result, oilseeds and oilseed meals entered the EC at world market prices.

This agreement, which went into effect in 1963, benefited the U.S. and other oilseed producers in several ways. Not only did it permit free entry of soybeans and soybean meal into the EC's import market, but the simultaneous application of import duties on feed grains further boosted oilseed protein meal consumption by EC livestock feeders; oilseed protein is cheaper relative to grain in the EC than in the rest of the world.



## EC and Japan Are Largest Export Markets for U.S. Soybeans



Shares based on fiscal 1986-88 average.

This distorted price relationship pushed protein meal's share of EC livestock rations from 13 percent to 22 percent between 1972 and 1987. In contrast, grains' share declined from 72 percent to about 55.

In the EC, government intervention in the oilseed and grain sectors has significantly altered Community oilseed production and trade patterns. Support prices for oilseeds stood far in excess of market prices, encouraging EC producers to expand from growing less than 5 million tons in 1982 to more than 12 million in 1987, an 18-percent annual rate. The domestic expansion reduced EC oilseed and oilseed meal imports. EC soybean output during the period soared from 30,000 tons to 1.8 million. For much of the 1980's, the EC provided more support to oilseed producers than to grain farmers.

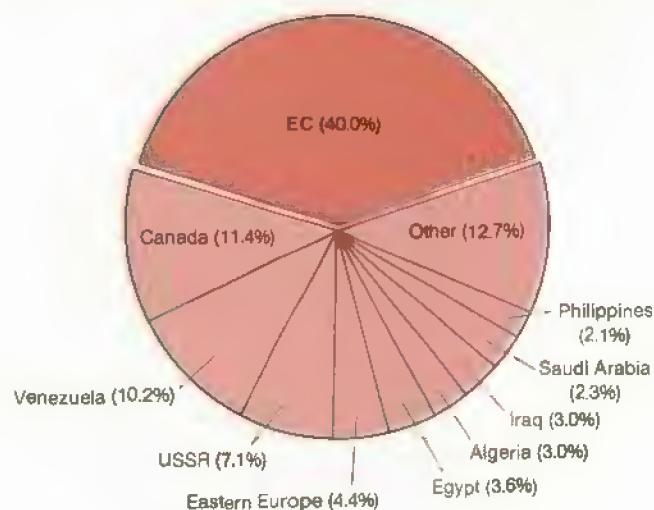
Despite its recent production gains, the EC remains the largest market for U.S. soybeans and meal exports. And while the concessions made in the Dillon Round are still technically in effect, the EC's Common Agricultural Policy subsidizes domestic crushers to buy high-priced EC output first before taking imports.

Although other large importers of soybeans and meal have tariffs that shelter their domestic producers, their output is small relative to that of the EC.

## U.S. Programs Put Soybeans At a Disadvantage

In the U.S., government intervention in the oilseed sector is far less than in the EC. The support consists primarily of a nonrecourse loan program and subsidized exports of vegeta-

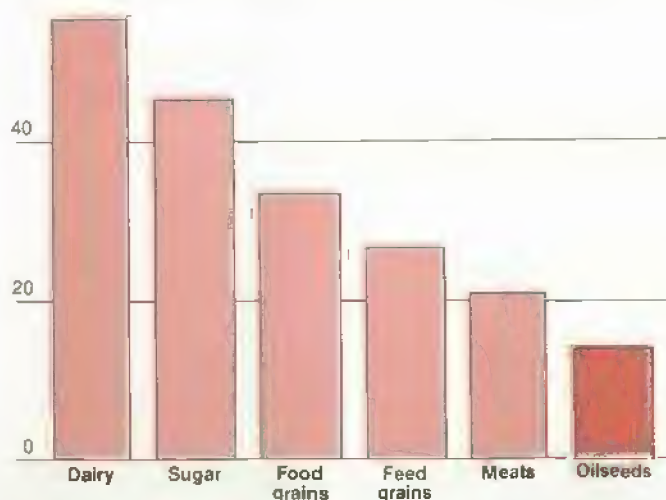
## Lian's Share of U.S. Soybean Meal Exported Goes to EC



Shares based on fiscal 1986-88 average.

## Global Producer Subsidy Equivalents: Soybeans Receive the Least\*

Percent  
60



\*1982-86 average. A PSE is the ratio of total government transfers to farm revenue (including direct payments).

ble oil under the Export Enhancement Program (EEP). EEP enables U.S. producers to compete with subsidizing exporters, mainly the EC.

In the U.S., there are no deficiency payments for soybeans, nor have there been acreage restrictions or marketing quotas to control production.

While price supports for soybeans have been in effect since 1941, the program has been inconsequential most years. The season average price of soybeans has met or exceeded the loan rate in all but a few years. As a result, USDA acquisitions of soybeans under price supports have been small relative to other program crops such as corn.

U.S. programs for feed grains and upland cotton actually have had a larger impact on soybean production than the soybean program itself. High target prices have allowed corn and upland cotton producers to remain relatively well insulated from fluctuating market prices, reducing their desire to consider alternative crops such as soybeans. For example, despite a rise in the soybean-to-corn market price ratio from 2.75 in 1987 to almost 3.0 in 1988, U.S. soybean acreage was virtually unchanged.

Intervention in other U.S. oilseed sectors also is small, with the exception of peanuts; the government intervenes significantly in peanut production and trade.

## Brazil and Argentina Tax Exports

In Brazil and Argentina, government intervention is most pronounced in oilseed product trade, rather than production. Their governments impose differential export taxes that skew oilseed complex exports heavily in favor of meal and oil. In Brazil, the government currently imposes an export tax of 13 percent on soybeans, 11 percent on soybean meal, and 5 percent on soybean oil.

In Argentina, the differential is wider, with a 41-percent tax on soybean exports and a 33-percent tax on soybean products. Although the tax rates frequently change and are used together with a variety of other tax, credit, and foreign exchange mechanisms, some differential is maintained.

As a result, Brazil and Argentina capture a larger share of global product trade relative to unprocessed trade than they would in the absence of these differentials. Brazilian soybean meal exports have exceeded those of the U.S. every year since 1980, even though Brazilian soybean production is often only one-third that of U.S. output.

Because these taxes lower producer prices for domestic oilseeds and raise export prices for processed products, the aggregate volume of these two producers' exports of seeds and meal may be lower than they would be in the absence of the taxes.

## How Trade Liberalization Would Affect World and U.S. Oilseeds and Products





Major Exporters and Market Shares for Each Oilseed and Product

Commodity	Seed		Meal		Oil	
	Exporter	Market share 1/ Percent	Exporter	Market share 1/ Percent	Exporter	Market share 1/ Percent
Soybeans	U.S.	74	Brazil	31	EC	37
	Brazil	9	U.S.	24	Argentina	23
	Argentina	7	EC	19	Brazil	19
	China	5	Argentina	16	U.S.	17
Rapeseed	EC	45	EC	38	EC	71
	Canada	41	China	28	Canada	16
	E. Europe	10	Canada	22	E. Europe	6
	O.W. Europe*	2	E. Europe	5	O.W. Europe	4
Sunflowerseed	EC	65	Argentina	67	Argentina	39
	U.S.	16	EC	25	EC	28
	Argentina	11	U.S.	3	E. Europe	16
	E. Europe	6	India	2	U.S.	11
Cottonseed	Australia	31	China	43	U.S.	50
	China	21	Paraguay	10	Brazil	29
	Thailand	9	Argentina	7	Argentina	6
	Togo	9	Brazil	6	Paraguay	6
Peanuts	China	28	India	38	Senegal	31
	U.S.	27	Senegal	26	China	19
	Argentina	13	China	15	Argentina	17
	EC	4	Sudan	8	EC	12
Copra	Philippines	32	Philippines	57	Philippines	69
	New Guinea	25	Indonesia	33	Indonesia	8
	New Hebrides	10	EC	4	EC	4
	Solomon Is.	9	New Guinea	2	Malaysia	3
Flaxseed/ linseed	Canada	91	Argentina	55	Argentina	56
	EC	6	EC	33	EC	41
	U.S.	2	U.S.	11	U.S.	2
	Argentina	1	India	2/	Japan	1
Palm kernel/ oil 3/	Nigeria	55	Malaysia	72	Malaysia	69
	New Guinea	19	Indonesia	16	Indonesia	13
	Cameroon	6	Nigeria	5	Singapore	10
	Guinea	5	EC	2	EC	3

1/ Market shares based on 1985/86 to 1987/88 averages. 2/ Less than 1 percent. 3/ Seed and meal shares are for palm kernel, oil share is for palm oil. \* Western Europe other than EC.

However, without the taxes, government revenues in both countries, burdened by substantial foreign debt, would be lower. Earnings from their oilseed complex exports are their largest source of foreign revenues from agricultural trade. For these and other developing countries, export taxes are attractive sources of government revenue because such taxes can be collected from shippers with relative ease compared with income or profit taxes.

#### How Liberalization Would Affect Output: In U.S., More Production

The U.S. and other efficient, low-cost producers of oilseeds and oilseed products could benefit from higher global import demand following the removal of production and trade subsidies and other forms of intervention. Other beneficiaries would include Argentina, Canada, Malaysia, Indonesia, and perhaps Brazil.

Most U.S. gains would occur in soybean and soybean product markets because soybeans account for the largest share

of U.S. oilseed production and trade. Nonetheless, U.S. rapeseed and sunflowerseed growers could benefit as well.

U.S. peanut growers, however, could experience a substantial one-time loss in the value of existing peanut farm poundage quotas. Trade liberalization would lower U.S. peanut producer prices. Domestic peanut production might fall only slightly, and the U.S. share of global peanut trade likely would not be affected.

The degree to which global oilseed production, trade, and consumption would adjust depends heavily on what would happen to oilseed prices relative to grain prices. In the U.S., removing the target price and base acreage requirements for corn would cause the relative returns of planting corn to soybeans to fall, despite likely rises in corn's market price.

This probably would result in increased soybean acreage in the Corn Belt. However, Southern soybean acreage likely would be unchanged, since high market prices for cotton would continue to make cotton attractive.

Major Importers and Market Shares for Each Oilseed and Product

Commodity	Seed		Meal		Oil	
	Importer	Market share 1/ Percent	Importer	Market share 1/ Percent	Importer	Market share 1/ Percent
Soybeans	EC	48	EC	52	EC	15
	Japan	17	E. Europe	15	Iran	11
	Taiwan	7	USSR	8	India	10
	USSR	6	Venezuela	3	Pakistan	9
Rapeseed	EC	52	EC	58	EC	30
	Japan	37	Japan	12	India	17
	Mexico	5	U.S.	9	U.S.	7
	USSR	3	South Korea	8	Morocco	7
Sunflowerseed	EC	75	EC	88	EC	23
	Mexico	16	Cuba	6	Egypt	14
	E. Europe	5	E. Europe	4	USSR	12
	U.S.	1	Canada	1	Algeria	7
Cottonseed	Japan	57	EC	70	Egypt	37
	EC	14	E. Europe	7	Venezuela	20
	Mexico	14	S. Africa	6	Japan	11
	Lebanon	7	S. Korea	5	El Salvador	9
Peanuts	EC	45	E. Europe	45	EC	80
	Japan	10	EC	35	Hong Kong	9
	Canada	8	USSR	6	O.W. Europe*	3
	Singapore	7	Thailand	6	U.S.	2
Copra	EC	30	EC	97	EC	39
	Japan	25	O.W. Europe	2	U.S.	36
	South Korea	10	Malaysia	2/	USSR	4
	Singapore	9	Singapore	2/	China	3
Flaxseed/ linseed	EC	68	EC	95	USSR	39
	Japan	12	E. Europe	2	EC	24
	U.S.	10	O.W. Europe	2	E. Europe	22
	E. Europe	9	U.S.	2/	China	8
Palm kernel/ oil 3/	EC	93	EC	99	EC	50
	Japan	6	O.W. Europe	2/	U.S.	26
	Malaysia	1			Singapore	4
					S. Africa	4

1/ Market shares based on 1985/86 to 1987/88 averages. 2/ Less than 1 percent. 3/ Oilseed and meal shares are for palm kernel, oil share is for palm oil. \*Western Europe other than the EC.

### Soybean Production Growth in South America Would Slow

In South America, changes in relative prices could favor more grain production. Higher world grain prices probably would induce Brazilian producers to plant more wheat and corn. However, because Brazil likely would continue to add to its agricultural land base, it could increase both grain and soybean output with trade liberalization.

Still, continued expansion in Brazilian soybean area likely would be slow because Brazil's soybean yields are lower and have grown less than U.S. and Argentine yields. Rapid soybean expansion into the interior would cut Brazilian competitiveness because of high internal transportation costs.

Argentine total crop area, which has remained fairly stable in recent years, probably would reverse its recent trend toward more oilseeds and move back to more grains. However, within the Argentine oilseed sector, incentives to grow high-oil-yielding seeds such as sunflower and rapeseed would strengthen, as EC import demand for these seeds rose.

Trade liberalization probably would not induce a dramatic swing in soybean area, because more factors are at work in

Brazil and Argentina than just relative prices. Even before the relative price increase for soybeans in recent years, Argentine soybean area was expanding. In Brazil, corn is a major food crop in the subsistence sector; production in that sector is probably not greatly affected by relative prices.

### EC Would Need More Oil and High-Oil Seeds

A major reason that Argentina, the U.S., and other efficient oilseed producers might find it profitable to shift additional acreage into sunflowerseed and other high-oil-content oilseeds is that specific changes probably would occur in EC needs.

EC oilseed production is heavily weighted toward high-oil-content oilseeds, such as sunflower and rapeseed, which account for about 80 percent of total output. So, a contraction in the EC's production would cause its imports of high-oil-content oilseeds and vegetable oils to increase following liberalization, while protein meal trade could show little change.



Share of Trade: Soybean Meal and Palm Oil Dominate Product Markets 1/

Commodity	Oilseed	Meal	Oil
	Percent		
Soybeans	76	77	22
Rapeseed	12	3	10
Sunflowerseed	5	3	12
Cottonseed	1	2	2
Peanuts	4	2	2
Copra	1	2	9
Flaxseed/linseed	2	3	2
Palm kernel/oil 2/	*	3	35
Total	100	100	100

1/ Market shares based on 1985/86 to 1987/88 averages. Totals may not add to 100 because of rounding. 2/ Oilseed and meal shares are for palm kernel, oil share is for palm oil. \* Less than 1 percent.

The degree to which EC oilseed and oilseed product imports, particularly soybean meal imports, fell or rose would also depend on internal price realignments. With the end of corn import barriers, the EC soybean-to-corn price ratio would rise, causing livestock producers to reduce oilseed protein's current high share in feed rations and increase corn's share. In addition, EC feed requirements would fall if livestock numbers declined with the removal of government support to the animal sector.

Because of the possibility of reduced vegetable oil production from domestic oilseeds in the EC and elsewhere, global prices could strengthen for vegetable oils, particularly in the short run, and for those oilseeds with a high oil content.

As a result, efficient oilseed and product producers would benefit to differing degrees depending on their mix of production. In addition, higher oil prices would increase crushing margins and therefore raise demand for soybeans.

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## Europe 1992, GATT, & Food Safety: How Will U.S. Agriculture Fare?

**H**armonizing regulations on food safety and plant and animal health has emerged as a central issue in both the European Community's "Europe 1992" plans for single market integration and in the GATT Uruguay Round negotiations on agriculture.

In the Uruguay Round, GATT members have agreed to use recognized international standards in resolving trade disputes over food safety and animal and plant health issues. Where international standards do not exist, the GATT members agreed to rely on relevant international scientific organizations for determining scientific consensus.

So the EC, as part of the GATT, would be expected to remain consistent with international standards as it sets Community-wide standards. However, there are indications that EC members are likely to negotiate standards among themselves that differ from international standards. This approach may distort world trade patterns and could cut U.S. agricultural exports.

### Billions in U.S. Ag Trade at Stake

Billions of dollars in U.S. trade are at stake in the Europe 1992 and GATT harmonization programs. Most likely to be affected are high-value agricultural products such as beef, beef products, animal feeds, specialty fruits and vegetables, and processed foods. In 1987, the U.S. exported \$3.4 billion in high-value agricultural products to the EC.

The EC does not have a central regulatory agency comparable to the U.S. Food and Drug Administration (FDA).

#### About a Quarter of U.S. High Value Exports to the EC Are Fruits and Vegetables

	1985	1986	1987
	\$ million		
U.S. high-value ag exports to EC	3,080.9	3,273.2	3,403.9
Selected high-value items			
Fruit and vegetables	497.0	609.6	794.5
Fresh fruit	240.9	284.6	405.4
Processed fruit	147.7	190.6	242.1
Fresh vegetables	84.9	108.6	118.9
Processed vegetables	23.6	26.0	28.1
Meat products	138.0	176.0	235.9
Dairy products	19.7	2.0	2.8
Eggs	3.8	6.3	3.7
Animal feeds	1,063.2	1,549.4	1,515.9

Source: U.N. Trade Data System.

#### EC Is a Net Exporter of Meat to the U.S.

	1985	1986	1987
	\$ million		
EC high-value ag exports to U.S.	2,381.8	2,562.8	2,499.4
Selected high-value items			
Fruit and vegetables	543.4	567.5	557.9
Fresh fruit	45.9	38.6	31.8
Processed fruit	168.4	204.5	173.6
Fresh vegetables	89.3	79.8	89.9
Processed vegetables	239.9	244.7	262.6
Meat products	464.0	451.9	455.9
Dairy products	221.8	234.3	254.3
Eggs	1.5	2.7	2.1
Animal feeds	24.1	25.6	31.1

Source: U.N. Trade Data System.

Rather, each national government has separate standards on food safety and plant and animal health. Because these standards differ among member countries, they often impede agricultural trade within the EC. The Europe 1992 project aims to eliminate internal barriers to trade, which means that nontariff barriers in the form of health and safety standards must also be eliminated.

GATT members, including the EC, agreed at the midterm review last April to strengthen the rules for regulating trade on health and safety grounds. But the EC and GATT have different political and institutional priorities. Europe 1992 has a very high political priority among the Europeans, and their internal negotiations are extremely complex.

The U.S. government is closely monitoring the Europe 1992 negotiations and is actively participating in GATT talks to ensure that U.S. farming and food processing interests are treated fairly. U.S. Secretary of Commerce Robert Mossbacher and the EC's Commissioner for the Internal Market, Martin Bangemann, last spring initialed an agreement that is intended to permit some form of U.S. input into

the EC's standard-setting process for industrial products. The U.S. is considering a formal request to get similar treatment for agricultural products.

#### Health and Safety Standards To Be Worked Out in GATT Forum

For most industrial products, international trade has gradually been liberalized within the GATT since its inception in 1947. However, only limited progress was made on agricultural trade before the current Uruguay Round of negotiations.

Agriculture has always held a special place in GATT because some countries consider it too sensitive to be left open to international market forces. Protecting the health and safety of consumers and the plants and animals they eat is a jealously guarded function of national governments, and GATT rules specifically permit differing national measures to safeguard human, animal, and plant health.

The GATT, however, requires that these measures not be applied in a discriminatory manner, or be used as disguised trade barriers. In practice, countries have resorted to the use of unjustified health and safety regulations to protect their markets, particularly when other trade barriers were removed. History has shown that these regulations can block international trade more effectively and more intractably than other restrictions.

The GATT midterm agreement endorses the concept that countries should rely on internationally accepted scientific evidence in establishing health and safety standards which affect trade. The 96 GATT member countries agreed that three international organizations—the Codex Alimentarius Commission, the International Office of Epizootics (OIE), and the International Plant Protection Convention (IPPC)—should provide the GATT dispute-settlement process with scientific expertise.

#### EC Directives May Contradict Proposed GATT Principles

Concerns over trade disruptions due to Europe 1992 standards have been compounded by several recent EC decisions. Four problem areas indicate that the EC may ignore GATT principles as it negotiates internal health and safety issues:

- The EC may not follow the GATT-defined internationally accepted scientific consensus in setting health and safety standards.
- The EC may not reach a workable agreement on mutual recognition of equivalent standards.
- The EC is considering adding a requirement of proof of "social and economic need" to the approval process for new production-enhancing technologies.
- The political importance of Europe 1992 to the Europeans may supersede their commitment to the GATT negotiations.



## International Organizations Address Food Safety

The agriculture ministers of the 96 GATT member countries agreed to a U.S. proposal to rely on technical information from three international scientific organizations in resolving food safety and health-related trade issues. The three organizations are:

*The Codex Alimentarius Commission*, a subsidiary of the Food and Agriculture Organization of the United Nations and the World Health Organization. The Codex was established in 1963 to facilitate world food trade by establishing international standards based on accepted scientific knowledge. Representatives of 135 countries serve on the Codex Commission, which oversees 14 commodity subcommittees and 7 general committees dealing with subjects such as food additives, pesticide residues, and food labeling. Codex expert committees are composed of representatives from government regulatory agencies, the international scientific community, and industry.

*The International Office of Epizootics*, is known by the initials of its French name, OIE. The world's oldest international veterinary organization, OIE was formed in 1924 and now has 130 members.<sup>2</sup> Its goals are to develop and maintain a worldwide animal disease reporting network, and to facilitate world trade by minimizing the risk of spreading livestock diseases. The OIE recommends sanitary regulations for trade in animals and animal products and establishes appropriate testing procedures.

*The International Plant Protection Convention (IPPC)*, like the Codex, is a subsidiary of the UN Food and Agriculture Organization. The IPPC focuses on preventing the spread of plant-borne diseases and pests and developing plant quarantine requirements for international trade. The IPPC was formed in the 1950's and now has 91 member countries.

*Scientific consensus.*—U.S. exporters are faced with the loss of over \$100 million in beef and beef product exports to the Community in 1989 because of the Europe 1992 directive on meat derived from animals treated with hormones. The FDA has approved the use of some natural and synthetic hormones in meat animals. And an EC Commission scientific working group has found properly administered natural hormones to be safe, as did the FAO-WHO subcommittee on food additives.

Scientific groups in Canada and Japan have also reviewed FDA-approved hormones and have found them to be safe when properly administered. The hormones have been approved for use in Canada, Japan, and elsewhere.

The EC has argued that its hormone ban is not a trade barrier because it applies to domestic as well as imported beef. Some consumer groups in the EC are sensitive to food safety issues because of widely publicized scandals there involving the misuse of hormones (see "The U.S.-EC Hormone Dispute," in the March 1989 *Agricultural Outlook*). Some

groups in the EC insist on proof that beef derived from hormone-treated cattle poses absolutely no risk to human health. There is a high-level U.S./EC joint task force working to resolve the dispute.

*Mutual recognition and GATT equivalency.*—Europe 1992 negotiators are struggling with how to harmonize health and safety regulations among member countries of different cultures and climates. A recent EC Commission document outlined a framework for harmonization rules that would allow the free movement of foodstuffs within the EC.

According to the framework, the EC Commission would harmonize rules that are necessary for public health, the protection of consumers, fairness of commercial transactions, and environmental protection. In the absence of harmonized rules, the principle of mutual recognition would apply, that is, products legally manufactured and sold in one member country could be sold to other members with no trade barriers.

The threat of mutual recognition likely will drive EC member states to agree on harmonized rules for most food and agricultural products before the borders fall. Many member states are fearful that under mutual recognition, producers in countries with lower standards would have access to their markets.

The same rules, be they harmonized standards or mutual recognition, should also apply to imports from outside the EC. Hence, because under mutual recognition imports could enter the country with the lowest standards, EC members are likely to harmonize most standards. But, for those non-EC countries able to meet EC standards, market access should be enhanced, because only one set of standards would have to be met in most cases, instead of separate ones for each of the 12 countries.

With some EC member states concerned that quality will be at risk for the items covered by the principle of mutual recognition, internal EC disputes are likely. One suggestion has been a two-tiered approach, in which EC-wide standards would be made for new products from member countries, while mutual recognition with an arbitration system for disputes would apply for members' existing products.

The principle of mutual recognition is similar to the proposed GATT concept of equivalence. The latter would allow producers and processors to use different methods and standards as long as equivalent levels of health and safety were obtained.

It is unclear whether the EC will follow the proposed GATT principle of recognizing equivalent standards and practices, partly because of the Community's internal problems with mutual recognition and partly because of another 1992 directive, the Third Country Red Meat Directive.

The Third Country Red Meat Directive, one of the 279 directives identified as necessary to complete the internal market,

## In the U.S., States Can Have Differing Standards

Federal law does not allow state regulations to be more restrictive than federal regulations in the control of organisms. But, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) does allow state regulations to be more restrictive than federal law in the regulation of some chemical compounds. FIFRA is administered by the Environmental Protection Agency (EPA).

In the absence of any federal regulations, states can legislate and administer food safety regulations. This has occurred in many states, particularly California, Arizona, Texas, and Florida, where agricultural stations at borders have been, or can be, established. Federal food safety regulations are administered by the USDA.

For an example, take the Mediterranean fruit fly. At the federal level, there are no standards regarding fly infestations in fruit shipments. But California has strict standards to keep the fly out, and inspects incoming fruit at various border checkpoints.

States in the U.S. have traditionally refrained from using food safety-related barriers to protect domestic producers from competition, even though there is often no legal constraint that prevents them from doing so. But the EC Commission has documented a number of food safety barriers erected by member nations that are not based on scientific research. This is why the EC likely will rely on a Community-wide binding arbitration process to solve trade-related food-safety disputes.

established standards for all red meat traded among EC countries and imported into the Community from other countries. The directive did not allow for the concept of equivalency and forced meat processors in non-EC countries to retrofit their plants to exact EC specifications to be eligible to export to the EC.

Before the Third Country Red Meat Directive, over 300 U.S. meat processing plants were able to sell their products in the EC. Now, only 148 U.S. plants have been able to satisfy the EC standards. And these plants had to invest substantial sums to meet the new specifications. The directive is extremely detailed—for example, no wood is allowed in the processing area. Moreover, the directive is not uniformly enforced.

*Social and economic need criterion.*—The EC is considering this new criterion for judging approval of production-enhancing substances, including hormones, antibiotics, and other

products. If accepted, the criterion would subject technological innovations to a nonobjective test in addition to the internationally accepted criteria of safety, quality, and efficacy.

The new criterion has emerged in a debate in the EC Commission about banning bST, a bovine growth hormone that enhances milk production. If the U.S. approves the use of bST and the EC bans it, the U.S. would lose about \$25 million annually in dairy product exports.

Many agricultural producers and food processors, both within the EC and from other countries, fear that regulating new products on the basis of potential economic or social impacts could be used to ban virtually any technological innovation. The EC is attempting to limit the debate to those products that are "growth promoting," but this likely would lead to endless disagreement over definitions of what promotes growth or yield.

## Dispute Panels Might Help Resolve Inevitable Conflicts

The Europe 1992 negotiators are grappling with a thorny problem. They are attempting to break down longstanding trade barriers among 12 countries whose people retain strong national and cultural identities. EC consumers are already sensitive to food safety issues, and recent hormone scandals in the EC have exacerbated the problem. Consumers have no direct voice in making the EC proposals and Commission deliberations are not made public, adding to the confusion about standards.

The implication for the GATT negotiations in the Europe 1992 harmonization process is that the EC members are likely to negotiate standards among themselves that will differ from existing international standards and methods. While the EC has said it will take international standards into consideration, it is unlikely to conform completely for all products.

Since the EC is attempting to set internal standards at the strictest possible level, they could interfere with present trade patterns. However, for those countries able to meet the standards, market access would be enhanced because only one standard would have to be met for sales to the 12 member nations.

One solution for the differences likely to arise between EC standards and those to be recognized by the GATT would be to create efficient dispute panels that could resolve the inevitable conflicts that will occur among EC member states, as well as conflicts between the EC and its GATT trading partners. Both Europe 1992 and GATT representatives are considering this approach, among others. [David Kelch and Terri Raney (202) 786-1610]



# Statistical Indicators

## Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1988		1989				1990			
	Annual	I	II	III	IV F	Annual F	I F	II F	III F	Annual F
Prices received by farmers (1977=100)	138	143	141	137	--	140	--	--	--	--
Livestock & products	150	159	155	158	--	157	--	--	--	--
Crops	126	138	137	132	--	132	--	--	--	--
Prices paid by farmers, (1977=100)										
Production items	157	163	165	165	--	168	--	--	--	--
Commodities & services, interest, taxes, & wages	170	175	177	178	--	180	--	--	--	--
Cash receipts (\$ bil.) 1/	151	156	161	171	--	153-161	--	--	--	--
Livestock (\$ bil.)	79	84	81	81	--	78-82	--	--	--	--
Crops (\$ bil.)	73	71	80	90	--	75-79	--	--	--	--
Market basket (1982-84=100)										
Retail cost	116	122	124	125	--	--	--	--	--	--
Farm value	100	107	108	107	--	--	--	--	--	--
Spread	124	131	133	135	--	--	--	--	--	--
Farm value/retail cost (%)	30	30	30	30	--	--	--	--	--	--
Retail prices (1982-84=100)										
Food	118	123	125	126	126	125	--	--	--	--
At home	117	122	124	124	124	123	--	--	--	--
Away from home	122	125	127	129	130	128	--	--	--	--
Agricultural exports (\$ bil.) 2/	35.3	10.9	9.8	9.0	9.5	40.0	--	--	--	--
Agricultural imports (\$ bil.) 2/	21.0	5.8	5.5	5.0	5.2	21.5	--	--	--	--
Commercial production										
Red meat (mil. lb.)	39,763	9,594	9,871	9,853	10,093	39,411	9,650	9,767	39,325	
Poultry (mil. lb.)	20,587	5,070	5,539	5,700	5,600	21,908	5,510	5,940	23,375	
Eggs (mil. doz.)	5,772	1,391	1,394	1,390	1,460	5,635	1,415	1,420	5,770	
Milk (bil. lb.)	145.5	36.6	38.0	35.5	35.6	145.7	37.1	38.9	148.7	
Consumption, per capita										
Red meat and poultry (lb.)	218.3	52.5	54.2	55.0	57.5	219.1	53.8	55.2	222.3	
Corn beginning stocks (mil. bu.) 3/	4,881.7	7,071.6	5,203.9	3,419.0	1,930.0	4,259.1	--	--	--	--
Corn use (mil. bu.) 3/	7,698.7	1,868.5	1,787.0	1,489.9	--	--	--	--	--	--
Prices 4/										
Choice steers--Omaha (\$/cwt)	69.54	73.67	73.85	70.09	70-74	72-73	72-78	72-78	71-77	
Barrows & gilts--7 mths. (\$/cwt)	43.39	40.78	41.84	46.06	38-42	42-43	37-43	41-47	40-46	
Broilers--12-city (cts./lb.)	56.3	59.4	67.1	59.7	49-53	59-60	48-54	50-56	49-55	
Eggs--NY gr. A large (cts./doz.)	62.1	78.6	75.2	81.5	76-80	78-79	67-73	65-71	63-69	
Milk--all at plant (\$/cwt)	12.20	13.07	12.27	13.17	13.90-14.70	13.10-13.30	13.00-14.00	10.80-11.80	11.50-12.50	
Wheat--Kansas City HRW ordinary (\$/bu.)	3.56	4.34	4.44	4.31	--	--	--	--	--	
Corn--Chicago (\$/bu.)	2.39	2.72	2.76	2.49	--	--	--	--	--	
Soybeans--Chicago (\$/bu.)	7.33	7.63	7.39	6.71	--	--	--	--	--	
Cotton--Avg. spot mkt. (cts./lb.)	57.8	55.3	60.9	67.1	--	--	--	--	--	
	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	
Gross cash income (\$ bil.)	146.0	150.6	150.4	155.2	156.9	152.5	162.0	171.6	170-175	
Gross cash expenses (\$ bil.)	113.2	112.8	113.5	116.6	110.2	100.7	104.3	111.7	116-120	
Net cash income (\$ bil.)	32.8	37.8	36.9	38.6	46.7	51.8	57.7	59.9	52-57	
Net farm income (\$ bil.)	26.9	23.5	12.7	32.2	32.4	38.0	47.1	45.7	48-53	
Farm real estate values 5/										
Nominal (\$ per acre)	819	823	788	782	679	595	547	564	597	
Real (1977 \$)	551	513	472	448	376	322	290	288	291	

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct-Sept fiscal years ending with year indicated. 3/ Dec.-Feb. first quarter; Mar.-May second quarter; June-Aug. third quarter; Sept.-Nov. fourth quarter; Sept.-Aug. annual. Use exports & domestic disappearance. 4/ Simple averages. 5/ 1981 & 1986-89 values as of February 1. 1982-85 values as of April 1. F = forecast. -- = not available.

# U.S. and Foreign Economic Data

Table 2.—U.S. Gross National Product & Related Data

	Annual			1988			1989	
	1986	1987	1988	II	III	IV	I	II R
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	4,243.6	4,524.3	4,880.6	4,838.5	4,926.9	5,017.3	5,113.1	5,201.7
Personal consumption expenditures	2,797.4	3,010.8	3,235.1	3,204.9	3,263.4	3,324.0	3,381.4	3,444.1
Durable goods	406.0	421.0	455.2	454.6	452.5	467.4	466.4	471.0
Nondurable goods	942.0	998.1	1,052.3	1,042.4	1,066.2	1,078.4	1,098.3	1,121.5
Clothing & shoes	166.8	177.2	186.8	183.6	188.9	193.9	195.0	198.9
Food & beverages	500.0	529.2	559.7	554.5	567.8	574.1	587.3	592.2
Services	1,449.5	1,591.7	1,727.6	1,707.9	1,744.7	1,778.2	1,816.7	1,851.7
Gross private domestic investment	659.4	699.9	750.3	748.4	771.1	752.8	769.6	775.0
Fixed investment	652.5	670.6	719.6	719.1	726.5	734.1	742.0	747.6
Change in business inventories	6.9	29.3	30.6	29.3	44.6	18.7	27.7	27.4
Net exports of goods & services	-97.4	-112.6	-73.7	-74.9	-66.2	-70.8	-54.0	-50.6
Government purchases of goods & services	872.2	926.1	968.9	960.1	958.6	1,011.4	1,016.0	1,033.2
1982 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	3,717.9	3,853.7	4,024.4	4,010.7	4,042.7	4,069.4	4,106.8	4,132.5
Personal consumption expenditures	2,446.4	2,513.7	2,598.4	2,586.8	2,608.1	2,627.7	2,641.0	2,653.7
Durable goods	384.4	389.6	413.6	414.8	410.7	420.5	419.3	424.9
Nondurable goods	878.1	890.4	904.5	899.2	910.3	912.0	915.0	909.7
Clothing & shoes	157.4	159.6	161.3	157.1	164.1	164.6	165.0	165.8
Food & beverages	447.1	452.7	460.0	459.8	461.9	462.1	466.0	461.4
Services	1,183.8	1,233.7	1,280.2	1,272.8	1,287.0	1,295.2	1,306.7	1,319.0
Gross private domestic investment	639.6	674.0	715.8	713.5	733.6	709.1	721.1	719.8
Fixed investment	634.1	650.3	687.9	692.0	696.1	690.8	696.6	700.7
Change in business inventories	5.6	23.7	27.9	21.5	37.5	18.3	24.5	19.1
Net exports of goods & services	-129.7	-115.7	-74.9	-72.6	-74.9	-73.8	-55.0	-51.2
Government purchases of goods & services	761.6	781.8	785.1	783.0	775.9	806.4	799.7	810.3
GNP implicit price deflator (% change)	2.6	3.2	3.3	4.8	4.4	4.7	4.0	4.6
Disposable personal income (\$ bil.)	3,013.3	3,205.9	3,477.8	3,435.9	3,511.7	3,587.4	3,689.5	3,747.7
Disposable per. income (1982 \$ bil.)	2,635.3	2,676.6	2,793.2	2,773.3	2,806.4	2,835.9	2,881.7	2,887.6
Per capita disposable per. income (\$)	12,469	13,140	14,116	13,966	14,235	14,504	14,884	15,084
Per capita dis. per. income (1982 \$)	10,905	10,970	11,337	11,273	11,377	11,466	11,625	11,622
U.S. population, total, incl. military abroad (mil.)	241.6	243.9	246.4	246.0	246.7	247.3	247.9	248.4
Civilian population (mil.)	239.4	241.7	244.1	243.8	244.5	245.1	245.7	246.1
	Annual			1988			1989	
	1986	1987	1988	Aug	May	June	July	Aug P
Monthly data seasonally adjusted								
Industrial production (1977=100)	125.1	129.8	137.2	138.5	141.6	141.9	142.0	142.4
Leading economic indicators (1982=100)	132.1	139.6	142.5	144.1	143.7	143.7	143.9	144.4
Civilian employment (mil. persons)	109.6	112.4	115.0	115.2	117.2	117.5	117.5	117.6
Civilian unemployment rate (%)	7.0	6.2	5.5	5.6	5.2	5.3	5.2	5.2
Personal income (\$ bil. annual rate)	3,526.2	3,777.6	4,064.5	4,094.2	4,396.3	4,417.5	4,446.7	4,466.2
Money stock-M2 (daily avg.) (\$ bil.) 1/	2,811.2	2,909.9	3,069.5	3,029.7	3,072.1	3,088.0	3,117.5	3,136.3
Three-month Treasury bill rate (%)	5.98	5.82	6.69	7.02	8.40	8.22	7.92	7.91
AAA corporate bond yield (Moody's) (%)	9.02	9.38	9.71	10.11	9.57	9.10	8.93	8.96
Housing starts (1,000) 2/	1,805	1,621	1,488	1,459	1,308	1,406	1,424	1,353
Auto sales at retail, total (mil.)	11.4	10.3	10.6	10.5	10.3	9.8	10.2	11.4
Business inventory/sales ratio	1.55	1.51	1.50	1.50	1.50	1.51	1.54	..
Sales of all retail stores (\$ bil.)	121.2	125.5	134.4	135.7	142.5	142.5	143.3 P	144.3
Nondurable goods stores (\$ bil.)	73.9	76.9	83.6	84.1	88.4	88.4	88.8 P	88.5
Food stores (\$ bil.)	24.6	25.3	27.6	28.1	29.6	29.6	29.8 P	29.8
Eating & drinking places (\$ bil.)	12.1	12.7	13.1	13.3	13.6	13.7	13.7 P	13.6
Apparel & accessory stores (\$ bil.)	6.7	7.1	7.0	6.8	7.3	7.3	7.4 P	7.4

1/ Annual data as of December of the year listed. 2/ Private, including farm. R = revised. P = preliminary.  
 .. = not available.

Information contact: Ann Duncan (202) 786-3313.



Table 3.—Foreign Economic Growth, Inflation, &amp; Export Earnings

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 P	1990 F	1991 F
	Annual percent change											
World, less U.S.												
Real GDP	3.1	1.4	1.6	1.6	3.2	2.5	2.4	3.0	3.9	3.4	3.2	2.8
Consumer prices	17.0	15.8	14.7	18.8	22.8	22.1	11.8	16.6	34.4	70.9	58.8	12.3
Export earnings	22.2	-2.7	-7.0	-2.6	5.7	1.8	11.0	18.4	13.3	9.2	9.8	9.1
Developed less U.S.												
Real GDP	2.4	1.4	1.1	1.9	3.4	3.3	2.4	3.1	3.9	3.6	2.7	2.8
Consumer prices	10.9	9.6	8.0	6.0	5.1	4.7	2.8	2.6	2.9	4.2	3.6	3.3
Export earnings	17.0	-3.3	-4.3	-0.5	6.3	4.6	19.4	17.6	12.5	6.8	10.4	8.8
Asia, incl. China												
Real GDP	5.8	6.1	5.5	7.7	7.3	7.0	6.1	7.0	9.6	5.9	5.4	6.6
Consumer prices	12.4	9.3	5.8	6.2	6.7	7.3	5.7	7.3	11.8	7.9	7.9	7.7
Export earnings	27.3	7.6	-0.5	4.6	14.5	-0.9	9.4	29.3	23.1	14.4	12.0	11.8
Latin America												
Real GDP	5.4	0.9	-0.5	-3.2	3.5	3.7	4.1	3.0	0.5	-1.8	1.8	2.8
Consumer prices	64.0	67.9	75.1	130.0	177.9	184.9	88.9	140.5	318.0	700.8	578.8	85.0
Export earnings	30.1	5.3	-10.1	-0.8	6.6	-7.6	-14.5	9.1	17.1	8.6	4.8	8.3
Africa & Middle East												
Real GDP	1.3	0.0	1.4	0.1	1.1	0.0	-1.2	1.4	3.5	3.5	3.2	3.3
Consumer prices	24.6	17.3	12.9	16.7	19.4	11.2	11.7	13.3	23.7	20.7	17.4	16.2
Export earnings	37.9	-9.2	-19.7	-17.5	-6.2	-4.5	-20.8	16.1	7.4	9.1	8.0	7.8
Eastern Bloc												
Real GDP	---	---	---	2.7	1.9	1.3	3.2	1.4	2.9	1.4	1.1	2.2
Export earnings	---	---	---	8.2	1.5	-5.1	7.3	6.7	3.5	5.9	7.6	9.2

P = preliminary. F = forecast. -- = not available.

Information contact: Alberto Jerardo, (202) 786-1705.

## Farm Prices

Table 4.—Indexes of Prices Received &amp; Paid by Farmers, U.S. Average

	Annual			1988	1989					
	1986	1987	1988	Sept	Apr	May	June	July	Aug R	Sept P
	1977=100									
Prices received										
All farm products	123	126	138	144	147	149	147	146	144	143
All crops	107	106	126	135	140	141	138	134	126	127
Food grains	109	103	137	151	161	160	154	153	152	153
Feed grains & hay	98	85	120	137	139	138	131	126	120	120
Feed grains	96	81	117	135	131	130	125	122	115	115
Cotton	91	99	95	86	97	97	97	100	101	102
Tobacco	138	129	132	142	144	144	144	143	142	149
Oil-bearing crops	77	79	108	119	110	109	107	104	95	92
Fruit, all	169	181	181	187	166	201	197	159	163	199
Fresh market 1/	177	194	194	201	176	216	212	163	167	210
Commercial vegetables	130	144	142	146	171	153	152	168	137	123
Fresh market	123	147	137	141	168	145	149	170	131	115
Potatoes & dry beans	114	126	124	127	208	223	211	233	189	159
Livestock & products	138	146	150	153	154	156	157	157	161	158
Meat animals	145	163	168	167	170	171	172	174	177	170
Dairy products	129	129	126	128	127	126	127	130	163	141
Poultry & eggs	128	107	118	139	139	147	144	138	139	139
Prices paid										
Commodities & services,										
interest, taxes, & wage rates	159	161	170	--	177	--	--	178	--	--
Production items	144	147	157	--	165	--	--	165	--	--
Feed	108	103	128	--	140	--	--	133	--	--
Feeder livestock	153	179	192	--	185	--	--	193	--	--
Seed	148	148	150	--	170	--	--	170	--	--
Fertilizer	124	118	130	--	141	--	--	141	--	--
Agricultural chemicals	127	124	126	--	133	--	--	133	--	--
Fuels & energy	162	161	163	--	185	--	--	188	--	--
Farm & motor supplies	144	145	148	--	155	--	--	155	--	--
Autos & trucks	198	208	215	--	226	--	--	225	--	--
Tractors & self-propelled machinery	174	174	181	--	192	--	--	192	--	--
Other machinery	182	185	197	--	209	--	--	209	--	--
Building & fencing	136	137	138	--	140	--	--	141	--	--
Farm services & cash rent	145	146	147	--	151	--	--	151	--	--
Interest payable per acre on farm real estate debt	211	190	186	--	190	--	--	190	--	--
Taxes payable per acre on farm real estate	138	139	142	--	144	--	--	144	--	--
Wage rates (seasonally adjusted)	160	167	172	--	186	--	--	186	--	--
Production items, interest, taxes, & wage rates	150	151	160	--	167	--	--	167	--	--
Ratio, prices received to prices paid (X) 2/	77	79	82	84	83	84	83	82	81	80
Prices received (1910-14=100)	561	578	631	660	672	680	673	667	657	652
Prices paid, etc. (parity index) (1910-14=100)	1,093	1,110	1,167	--	1,220	--	--	1,226	--	--
Parity ratio (1910-14=100) (X)2/	51	52	54	--	55	--	--	54	--	--

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly and will be published in January, April, July, and October. P = preliminary. R = revised.

-- = not available.

Information contact: Ann Duncan (202) 786-3313.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1988		1989				
	1986	1987	1988	Oct	May	June	July	Aug	Sept R	Oct P
<b>Crops</b>										
All wheat (\$/bu.)	2.42	2.57	3.72	3.84	4.01	3.84	3.78	3.74	3.72	3.79
Rice, rough (\$/cwt)	3.75	7.27	6.75	6.74	6.76	6.94	7.33	7.33	7.55	7.54
Corn (\$/bu.)	1.50	1.94	2.54	2.58	2.58	2.52	2.47	2.26	2.27	2.20
Sorghum (\$/cwt)	1.37	1.70	2.27	4.16	4.02	3.90	3.99	3.81	3.80	3.61
All hay, baled (\$/ton)	59.70	65.10	87.10	86.80	104.00	94.80	85.40	82.80	85.00	85.70
Soybeans (\$/bu.)	4.78	5.88	7.35	7.53	7.21	7.06	6.83	6.07	5.70	5.28
Cotton, upland (cts./lb.)	51.4	64.3	55.5	55.1	58.8	58.8	60.6	61.1	63.8	64.1
Potatoes (\$/cwt)	5.03	4.35	5.49	4.35	8.94	8.45	9.47	7.57	5.62	4.97
Lettuce (\$/cwt)	11.90	14.70	14.70	11.50	7.48	13.50	16.30	10.50	12.60	17.70
Tomatoes (\$/cwt)	25.10	26.00	26.80	21.30	43.60	27.90	28.40	23.90	21.40	28.50
Onions (\$/cwt)	10.90	12.50	9.70	12.00	9.58	13.60	16.70	15.80	9.55	11.40
Dry edible beans (\$/cwt)	19.10	16.50	29.70	29.00	32.00	31.10	31.90	27.60	25.00	25.40
Apples for fresh use (cts./lb.)	19.1	12.7	17.2	18.3	14.1	10.8	9.8	16.1	19.1	15.9
Pears for fresh use (\$/ton)	369.00	227.00	357.00	394.00	448.00	493.00	480.00	398.00	382.00	387.00
Oranges, all uses (\$/box) 2/	4.27	5.40	6.56	3.11	8.52	8.10	5.04	3.91	5.62	6.22
Grapefruit, all uses (\$/box) 2/	4.29	4.96	5.39	7.58	4.05	4.85	4.62	5.63	6.10	8.18
<b>Livestock</b>										
Beef cattle (\$/cwt)	52.80	61.40	66.80	67.00	68.80	67.60	68.00	69.70	68.20	67.40
Calves (\$/cwt)	60.90	78.10	89.80	87.80	91.20	94.20	94.70	94.20	91.10	90.20
Hogs (\$/cwt)	50.10	50.80	42.50	38.70	41.60	45.10	45.90	45.70	43.40	46.80
Lambs (\$/cwt)	69.10	77.90	69.50	66.20	73.10	70.60	68.60	66.60	65.90	63.10
All milk, sold to plants (\$/cwt)	12.50	12.53	12.22	13.00	12.20	12.30	12.60	13.20	14.00	14.50
Milk, manuf. grade (\$/cwt)	11.46	11.37	11.15	12.30	11.20	11.30	11.60	12.20	13.10	13.60
Broilers (cts./lb.)	34.5	28.8	34.0	35.7	45.2	42.6	39.1	36.1	37.1	30.6
Eggs (cts./doz.) 3/	61.2	53.1	53.2	58.7	62.0	63.3	64.0	71.0	71.0	71.3
Turkeys (cts./lb.)	44.4	34.3	36.5	48.4	43.4	44.0	41.5	41.3	37.3	38.5
Wool (cts./lb.) 4/	64.3	87.1	138.0	123.0	139.0	139.0	120.0	105.00	97.7	100.0

1/ Season average price by crop year for crops. Calendar year average of monthly prices for livestock. 2/ Equivalent on-tree returns. 3/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 4/ Average local market price, excluding incentive payments. P = preliminary. R = revised.

Information contact: Ann Duncan (202) 786-3313.

## Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1989								
	1988	Sept	Feb	Mar	Apr	May	June	July	Aug	Sept
	1982-84=100									
Consumer Price Index, all items	118.3	119.8	121.6	122.3	123.1	123.8	124.1	124.4	124.6	125.0
Consumer Price Index, less food	118.3	119.7	121.3	122.0	122.9	123.5	123.9	124.2	124.3	124.8
<b>All food</b>	118.2	120.2	122.9	123.5	124.2	124.9	125.0	125.5	125.8	126.1
Food away from home	121.8	123.0	125.2	125.7	126.2	126.7	127.1	127.8	128.1	128.8
Food at home	116.6	119.0	122.0	122.7	123.5	124.4	124.3	124.8	124.9	125.0
Meats 1/	112.2	113.4	114.3	115.5	115.6	115.6	116.1	116.7	117.5	117.7
Beef & veal	112.1	113.6	116.6	119.0	119.0	119.6	119.3	119.5	119.7	120.0
Pork	112.5	113.7	110.9	111.0	111.2	110.1	111.8	113.6	114.8	114.3
Poultry	120.7	133.4	128.4	130.3	133.0	137.3	140.1	138.1	136.2	134.0
Fish	137.4	136.0	142.9	144.3	143.3	142.3	142.9	142.3	145.2	146.9
Eggs	93.6	103.1	106.1	122.9	117.6	112.6	110.6	112.8	115.2	124.6
Dairy products 2/	108.4	108.9	113.4	113.8	114.1	113.8	113.6	114.1	114.5	116.1
Fats & oils 3/	113.1	115.9	120.5	120.4	121.6	121.6	121.6	121.6	121.7	121.3
Fresh fruit	143.0	153.3	150.0	149.5	152.4	158.1	151.7	150.6	151.4	155.1
Processed fruit	122.0	123.8	125.5	124.7	124.6	125.1	125.6	126.0	126.9	127.8
Fresh vegetables	129.3	132.1	144.4	140.2	144.1	153.2	150.8	150.8	145.1	133.9
Potatoes	119.1	124.8	138.3	146.6	158.9	164.0	172.5	180.7	182.3	153.1
Processed vegetables	112.2	116.4	121.8	122.7	124.4	124.9	125.5	126.3	125.9	125.0
Cereals & bakery products	122.1	124.7	128.9	129.7	130.4	131.5	132.1	133.3	134.1	134.6
Sugar & sweets	114.0	115.6	117.8	118.0	117.9	118.1	119.2	120.1	120.6	120.8
<b>Beverages, nonalcoholic</b>	107.5	107.4	111.3	111.3	111.8	111.5	111.6	112.3	111.2	111.0
<b>Apparel</b>										
Apparel, commodities less foot	114.4	117.0	113.4	118.1	120.0	119.3	116.1	112.8	112.8	118.9
Footwear	109.9	112.2	112.7	114.1	115.3	114.9	114.0	113.4	112.6	114.1
Tobacco & smoking products	145.8	148.9	158.5	159.2	159.5	161.1	164.2	167.5	168.8	168.2
<b>Beverages, alcoholic</b>	118.6	119.6	121.1	121.8	122.3	123.1	123.5	124.0	124.5	124.8

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 786-3313.



Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1988	1989					
	1986	1987	1988 R	Sept	Apr	May R	June	July	Aug	Sept
	1982 = 100									
Finished goods 1/	103.2	105.4	108.0	108.6	113.0	114.2	114.1	114.0	113.3	113.5
Consumer foods	107.2	109.5	112.6	115.1	117.7	119.1	118.4	119.0	118.7	118.5
Fresh fruit	112.9	112.0	113.5	119.9	111.5	112.5	112.2	114.1	107.3	107.7
Fresh & dried vegetables	97.8	103.7	105.5	116.5	119.3	142.9	128.9	124.6	110.7	96.1
Dried fruit	91.9	95.0	99.1	99.8	102.3	102.3	102.8	102.8	103.3	105.4
Canned fruit & juice	111.0	115.3	120.2	120.5	121.7	122.1	122.7	123.4	123.3	123.2
Frozen fruit & juice	103.0	113.3	129.8	130.7	120.8	123.7	128.4	129.0	129.1	127.4
Fresh veg. excl. potatoes	99.3	99.0	100.4	110.4	107.1	140.4	117.0	110.5	96.3	81.5
Canned veg. & juices	101.2	103.5	108.3	111.7	118.8	119.1	119.0	118.9	118.5	118.4
Frozen vegetables	106.6	107.3	108.6	110.0	115.0	115.4	115.7	115.5	116.7	116.3
Potatoes	104.0	120.1	113.9	123.2	152.7	150.8	161.8	157.8	144.3	140.2
Eggs	99.5	87.6	88.6	102.1	110.8	107.0	104.8	111.0	116.7	124.7
Bakery products	116.6	118.4	126.4	129.4	133.6	134.4	134.9	135.3	137.3	137.8
Meats	93.9	100.4	99.9	101.2	103.1	103.7	103.4	105.8	106.1	105.2
Beef & veal	88.1	95.5	101.4	104.4	112.1	111.8	106.6	108.1	109.2	107.6
Pork	99.9	104.9	95.0	94.8	88.5	90.5	96.9	101.9	100.4	99.3
Processed poultry	116.7	103.4	111.6	125.4	124.9	133.0	130.6	125.9	120.0	120.2
Fish	124.9	140.0	148.7	145.6	150.9	149.3	139.1	137.3	139.9	137.7
Dairy products	99.9	101.6	102.2	103.8	105.6	105.6	106.4	107.8	110.8	112.9
Processed fruits & vegetables	104.9	108.6	113.8	115.5	119.0	119.8	120.7	120.8	121.0	120.9
Shortening & cooking oil	103.3	103.9	118.8	122.5	117.5	119.7	116.7	117.1	113.9	115.5
Consumer finished goods less foods	98.4	100.7	103.1	103.0	108.8	110.3	110.3	109.7	108.4	109.0
Beverages, alcoholic	110.1	110.3	111.8	111.9	115.6	116.6	116.6	116.9	117.2	114.2
Soft drinks	109.5	111.8	114.3	114.6	118.1	118.1	118.1	117.5	116.2	115.8
Apparel	106.3	108.3	111.7	112.5	113.8	114.0	114.0	114.2	114.7	115.0
Footwear	106.8	109.3	115.1	116.2	120.0	119.9	119.9	120.6	121.9	122.2
Tobacco products	142.4	154.6	171.9	175.4	187.3	187.4	196.8	196.8	198.7	198.7
Intermediate materials 2/	99.1	101.5	107.1	108.7	112.4	112.7	112.7	112.6	112.1	112.4
Materials for food manufacturing	98.4	100.8	106.0	109.5	111.1	112.5	112.1	112.9	113.2	114.0
Flour	94.5	92.9	105.7	114.1	113.6	116.1	116.5	115.0	114.3	113.3
Refined sugar 3/	103.2	106.4	108.9	109.9	115.8	116.9	116.9	118.1	118.5	121.1
Crude vegetable oils	84.8	84.2	116.6	125.3	107.8	115.0	103.1	100.3	96.2	99.5
Crude materials 4/	87.7	93.7	96.0	96.7	104.4	106.1	103.9	103.7	101.0	102.0
Foodstuffs & feedstuffs	93.2	96.2	106.1	112.0	111.6	114.9	111.4	109.7	109.5	108.3
Fruits & vegetables 5/	103.9	106.8	108.5	117.4	115.3	128.9	121.0	119.4	108.7	100.7
Grains	79.2	71.1	97.9	112.9	109.8	114.1	105.8	105.1	100.3	100.1
Livestock	91.8	102.0	103.3	100.7	106.4	107.4	105.5	104.3	108.3	103.2
Poultry, live	129.6	101.2	121.5	142.7	138.4	155.0	148.5	135.5	125.4	134.9
Fibers, plant & animal	88.3	106.4	98.4	89.6	105.0	108.1	110.5	111.4	116.7	113.9
Fluid milk	90.9	91.8	89.4	91.2	90.2	89.7	90.3	92.1	95.9	100.7
Oilseeds	91.4	99.2	134.0	155.7	130.7	137.5	127.5	129.7	115.3	113.6
Tobacco, leaf	89.7	85.7	87.2	91.1	93.7	93.7	93.7	93.7	91.8	97.0
Sugar, raw cane	104.9	110.2	111.9	111.6	112.3	113.8	115.4	118.5	118.3	119.0
All commodities	100.1	102.8	106.9	108.1	112.3	113.2	112.8	112.7	112.0	112.3
Industrial commodities	99.9	102.5	106.3	106.8	111.8	112.4	112.3	112.2	111.4	111.9
All foods 6/	105.5	107.8	111.5	114.4	116.8	118.3	117.4	118.1	117.8	117.7
Farm products & processed foods & feeds	101.2	103.7	110.0	114.0	115.0	116.8	115.2	115.4	114.9	114.4
Farm products	92.9	95.5	104.9	111.6	111.0	115.1	111.4	110.0	108.7	107.3
Processed foods & feeds 6/	105.4	107.9	112.7	115.4	117.2	117.9	117.3	118.2	118.0	118.1
Cereal & bakery products	111.0	112.6	123.0	126.4	129.1	130.8	130.8	132.1	133.1	132.9
Sugar & confectionery	109.6	112.6	114.7	115.9	119.2	119.6	120.6	121.5	121.3	121.8
Beverages	114.5	112.5	114.3	114.7	119.2	119.7	119.6	119.3	118.5	117.1

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types & sizes of refined sugar. 4/ Products entering market for the first time that have not been manufactured at that point. 5/ Fresh & dried. 6/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). R = revised.

Information contact: Ann Duncan (202) 786-3313.

# Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual				1988						1989				
	1985	1986	1987	1988	Sept	Apr	May	June	July	Aug	Sept				
<b>Market basket 1/</b>															
Retail cost (1982-84=100)	104.1	106.3	111.6	116.5	119.4	123.6	124.7	124.7	125.2	125.4	125.5				
Farm value (1982-84=100)	96.2	94.9	97.1	100.3	105.5	107.0	109.0	106.8	108.4	107.0	105.9				
Farm-retail spread (1982-84=100)	108.3	112.5	119.4	125.3	126.9	132.5	133.1	134.4	134.2	135.4	136.0				
Farm value-retail cost (%)	32.4	31.2	30.5	30.1	30.9	30.3	30.6	30.0	30.3	29.9	29.6				
<b>Meat products</b>															
Retail cost (1982-84=100)	98.9	102.0	109.6	112.2	113.4	115.6	115.6	116.1	116.7	117.5	117.7				
Farm value (1982-84=100)	91.3	94.3	101.2	99.5	100.3	103.4	103.2	103.6	103.4	104.4	101.7				
Farm-retail spread (1982-84=100)	106.7	109.8	118.3	125.2	126.8	128.1	128.3	128.9	130.3	131.0	134.1				
Farm value-retail cost (%)	46.8	46.8	46.7	44.9	44.8	45.3	45.2	45.2	44.9	45.0	43.8				
<b>Dairy products</b>															
Retail cost (1982-84=100)	103.2	103.3	105.9	108.4	108.9	114.1	113.8	113.6	114.1	114.5	116.1				
Farm value (1982-84=100)	95.2	92.6	93.3	90.4	91.0	93.0	91.7	92.5	94.1	98.2	99.4				
Farm-retail spread (1982-84=100)	110.5	113.3	117.5	124.9	125.4	133.5	134.2	133.0	132.6	129.5	131.5				
Farm value-retail cost (%)	44.2	43.0	42.3	40.0	40.1	39.1	38.6	39.1	39.6	41.1	41.1				
<b>Poultry</b>															
Retail cost (1982-84=100)	106.2	114.2	112.6	120.7	133.4	133.0	137.3	140.1	138.1	136.2	134.0				
Farm value (1982-84=100)	105.9	115.1	93.8	110.4	128.4	125.9	143.5	136.8	126.1	117.8	118.6				
Farm-retail spread (1982-84=100)	106.6	113.3	134.2	132.6	139.2	141.2	130.1	143.9	152.0	157.4	151.7				
Farm value-retail cost (%)	53.3	53.9	44.6	49.0	51.5	50.7	55.9	52.2	48.9	46.3	47.4				
<b>Eggs</b>															
Retail cost (1982-84=100)	91.0	97.2	91.5	93.6	103.1	117.6	112.6	110.6	112.8	115.2	124.6				
Farm value (1982-84=100)	85.7	92.4	76.8	76.7	97.0	99.8	93.3	95.5	97.3	110.3	110.7				
Farm-retail spread (1982-84=100)	100.4	106.0	117.9	123.9	114.1	149.5	147.2	137.7	140.7	123.9	149.6				
Farm value-retail cost (%)	60.5	61.0	53.9	52.7	60.4	54.5	53.2	55.5	55.4	61.5	57.1				
<b>Cereal &amp; bakery products</b>															
Retail cost (1982-84=100)	107.9	110.9	114.8	122.1	124.7	130.4	131.5	132.1	133.3	134.1	134.6				
Farm value (1982-84=100)	94.3	76.3	71.0	92.3	98.9	103.4	104.2	103.6	102.7	99.4	100.4				
Farm-retail spread (1982-84=100)	109.8	115.7	120.9	126.3	128.3	134.2	135.3	136.1	137.6	138.9	139.4				
Farm value-retail cost (%)	10.7	8.4	7.6	9.3	9.7	9.7	9.7	9.6	9.4	9.1	9.1				
<b>Fresh fruits</b>															
Retail cost (1982-84=100)	118.4	120.4	135.6	145.4	157.5	151.0	157.3	152.6	152.3	154.5	158.8				
Farm value (1982-84=100)	110.8	103.8	113.9	113.3	125.6	89.7	101.9	89.8	104.5	107.2	122.7				
Farm-retail spread (1982-84=100)	121.8	128.0	145.7	160.2	172.2	179.3	182.9	181.6	174.4	176.3	175.5				
Farm value-retail cost (%)	29.6	27.4	26.5	24.6	25.2	18.8	20.5	18.6	21.7	21.9	26.4				
<b>Fresh vegetables</b>															
Retail cost (1982-84=100)	103.5	107.7	121.6	129.3	132.1	144.1	153.2	150.8	150.8	145.1	133.9				
Farm value (1982-84=100)	93.1	90.0	112.0	105.8	113.5	142.7	153.4	153.0	158.3	127.0	99.5				
Farm-retail spread (1982-84=100)	108.9	116.8	126.5	141.3	141.7	144.8	153.1	160.0	147.0	154.4	151.6				
Farm value-retail cost (%)	30.5	28.4	31.3	27.8	29.2	33.6	34.0	29.9	35.6	29.7	25.2				
<b>Processed fruits &amp; vegetables</b>															
Retail cost (1982-84=100)	107.0	105.3	109.0	117.6	120.4	124.3	124.9	125.4	126.0	126.3	126.4				
Farm value (1982-84=100)	117.7	101.5	111.1	136.5	143.9	132.7	132.7	132.9	136.7	133.2	136.9				
Farm-retail spread (1982-84=100)	103.7	106.4	108.3	111.7	113.1	121.7	122.5	123.1	122.6	124.1	123.1				
Farm value-retail cost (%)	26.2	22.9	24.2	27.6	28.4	25.4	25.3	25.2	25.8	25.1	25.7				
<b>Fats &amp; oils</b>															
Retail cost (1982-84=100)	108.9	106.5	108.1	113.1	115.9	121.6	121.6	121.6	121.6	121.7	121.3				
Farm value (1982-84=100)	104.3	76.2	74.1	103.3	106.3	106.8	107.1	99.2	92.0	80.2	87.9				
Farm-retail spread (1982-84=100)	110.6	117.6	120.6	116.7	119.4	127.1	126.9	129.8	132.5	137.0	133.6				
Farm value-retail cost (%)	25.8	19.2	18.6	24.6	24.7	23.6	23.7	21.9	20.3	17.7	19.5				
	Annual				1988						1989				
	1985	1986	1987	1988	Sept	Apr	May	June	July	Aug	Sept				
<b>Beef, Choice</b>															
Retail price 2/ (cts./lb.)	232.6	230.7	242.5	254.7	259.7	269.8	271.9	268.1	271.6	269.5	270.9				
Net carcass value 3/ (csts.)	135.2	133.1	145.3	153.9	153.6	169.5	167.7	158.5	156.4	155.6	152.3				
Net farm value 4/ (csts.)	126.8	124.4	137.9	147.4	145.8	164.3	160.9	152.5	149.9	152.2	144.2				
Farm-retail spread (csts.)	105.8	106.3	104.6	107.3	113.8	105.5	111.0	115.6	121.7	117.3	126.7				
Carcass-retail 5/ (csts.)	97.4	97.6	97.2	100.8	106.0	100.3	104.2	109.6	115.2	113.9	118.6				
Farm-carcass 6/ (csts.)	8.4	8.7	7.4	6.5	7.8	5.2	6.8	6.0	6.5	3.4	8.1				
Farm value-retail price (%)	55	54	57	58	56	61	59	57	55	56	53				
<b>Pork</b>															
Retail price 2/ (csts./lb.)	162.0	178.4	188.4	183.4	184.9	179.5	177.1	179.1	182.8	184.6	184.4				
Wholesale value 3/ (csts.)	101.1	110.9	113.0	101.0	97.2	88.6	95.5	99.6	100.6	101.3	100.6				
Net farm value 4/ (csts.)	71.4	82.4	82.7	69.4	65.1	59.0	68.4	74.0	75.2	74.6	70.3				
Farm-retail spread (csts.)	90.6	96.0	105.7	114.0	119.8	120.5	108.7	105.1	107.6	110.0	114.1				
Wholesale-retail 5/ (csts.)	60.9	67.5	75.4	82.4	87.7	90.9	81.6	79.5	82.2	83.3	83.8				
Farm-wholesale 6/ (csts.)	29.7	28.5	30.3	31.6	32.1	29.6	27.1	25.6	25.4	26.7	30.3				
Farm value-retail price (%)	44	46	44	38	35	33	39	41	41	40	38				

1/ Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by BLS. The farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing. 2/ Weighted average price of retail cuts from pork & choice yield grade 3 beef carcasses. Prices from BLS. 3/ Value of carcass quantity (beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts; beef adjusted for value of fat & bone byproducts. 4/ Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of byproducts. 5/ Charges for retailing & other marketing services such as fabricating, wholesaling, in-city transportation. 6/ Charges for livestock marketing, processing, & transportation.

Information contacts: Denis Dunham (202) 786-1870, Ron Gustafson (202) 786-1286.



**Table 9.—Price Indexes of Food Marketing Costs**

	Annual			1988			1989		
	1986	1987	1988	II	III	IV	I	II P	III P
	1967=100*								
Labor--hourly earnings & benefits	359.4	361.1	370.1	369.5	368.9	374.0	377.8	378.8	378.5
Processing	363.4	370.2	379.7	383.0	381.3	383.7	389.6	391.4	390.5
Wholesaling	376.3	384.2	394.3	391.6	394.7	399.8	405.1	407.6	410.8
Retailing	347.9	341.7	346.6	346.2	345.1	353.1	353.9	353.6	352.2
Packaging & containers	317.4	329.8	350.7	347.8	355.6	358.4	362.4	364.7	366.1
Paperboard boxes & containers	269.1	288.0	308.1	307.1	311.4	314.6	319.1	323.2	325.5
Metal cans	430.1	433.0	442.3	443.9	443.3	438.1	438.1	438.1	448.2
Paper bags & related products	307.9	331.3	372.2	359.9	382.2	395.7	408.3	411.5	409.2
Plastic films & bottles	274.8	280.2	305.7	302.4	315.0	317.0	318.8	316.1	311.3
Glass containers	398.0	402.0	398.9	398.7	398.6	398.2	401.2	413.1	413.5
Metal foil	209.3	222.1	266.9	256.9	277.5	284.1	282.9	278.0	271.6
Transportation services	391.7	385.0	403.5	405.2	404.5	404.8	403.2	403.5	406.2
Advertising	339.7	361.1	384.6	382.8	386.8	391.2	403.8	407.4	412.3
Fuel & power	590.2	596.7	578.2	585.1	580.9	571.1	601.1	614.8	620.0
Electric	457.9	450.5	453.3	446.8	474.9	451.3	451.3	466.1	492.0
Petroleum	499.8	561.4	502.0	534.0	472.4	474.7	560.5	583.4	560.0
Natural gas	1,096.9	1,049.0	1,042.1	1,042.7	1,049.1	1,055.3	1,073.1	1,068.6	1,067.2
Communications, water & sewage	236.1	238.4	241.3	241.0	241.3	243.0	244.5	247.0	248.9
Rent	274.4	269.6	272.6	270.4	272.0	278.0	277.4	276.8	276.8
Maintenance & repair	368.5	382.6	395.9	395.3	397.5	399.7	404.8	408.9	412.9
Business services	331.3	349.0	364.6	362.6	366.2	371.0	375.5	379.3	379.3
Supplies	282.8	286.8	305.6	302.2	310.2	315.2	321.3	323.9	321.1
Property taxes & insurance	382.3	399.6	419.9	416.2	422.5	428.3	431.4	435.6	442.3
Interest, short-term	125.1	132.9	150.3	142.0	159.8	168.0	184.9	181.8	164.2
Total marketing cost index	354.9	360.4	372.4	371.6	373.4	376.8	382.0	384.1	385.0

\* Indexes measure changes in employee earnings & benefits & in prices of supplies & services used in processing, wholesaling, & retailing U.S. farm foods purchased for at-home consumption. P = preliminary.

Information contact: Denis Dunham (202) 786-1870.

## Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Production 1/ Million pounds 4/	Imports	Total supply	Exports	Ship- ments	Ending stocks	Consumption		Primary market price 3/
								Total	Per capita 2/	
									Pounds	
Million pounds 4/										
Beef										
1987	412	23,566	2,269	26,247	604	52	386	25,205	73.4	64.60
1988	386	23,589	2,379	26,354	680	64	422	25,188	72.1	69.54
1989 F	422	22,963	2,180	25,565	993	60	325	24,187	68.6	71-73
1990 F	325	23,165	2,140	25,630	1,120	60	325	24,125	67.8	71-77
Pork										
1987	248	14,374	1,195	15,817	109	124	347	15,237	59.1	51.69
1988	347	15,684	1,137	17,168	195	126	413	16,434	63.1	43.39
1989 F	413	15,890	950	17,253	240	140	370	16,503	62.9	43-45
1990 F	370	16,061	1,000	17,431	205	140	375	16,711	63.2	41-47
Veal 5/										
1987	7	429	24	460	7	1	0	449	1.5	78.05
1988	4	396	27	427	10	2	5	410	1.4	89.79
1989 F	5	354	0	359	0	1	5	353	1.2	93-94
1990 F	5	354	0	359	0	1	4	354	1.2	--
Lamb & mutton										
1987	13	315	44	372	2	2	8	360	1.3	78.09
1988	8	335	51	394	1	1	6	386	1.4	68.84
1989 F	6	339	60	405	2	0	7	396	1.4	67-69
1990 F	7	336	63	406	1	1	7	397	1.4	66-72
Total red meat										
1987	679	38,684	3,533	42,897	722	179	744	41,251	135.3	--
1988	745	40,004	3,594	44,343	886	193	846	42,418	137.9	--
1989 F	846	39,546	3,190	43,582	1,235	201	707	41,439	134.1	--
1990 F	707	39,916	3,203	43,826	1,326	202	711	41,587	133.6	--
Broilers										
1987	24	15,594	0	15,618	752	151	25	14,691	60.2	47.4
1988	25	16,180	0	16,205	765	156	36	15,248	61.9	56.3
1989 F	36	17,270	0	17,306	937	140	35	16,193	65.1	59-60
1990 F	35	18,549	0	18,584	920	140	30	17,494	69.8	49-55
Mature chicken										
1987	163	639	0	802	15	2	188	597	2.4	--
1988	188	638	0	826	26	3	157	641	2.6	--
1989 F	157	630	0	787	23	4	150	610	2.5	--
1990 F	150	638	0	788	20	4	150	614	2.4	--
Turkeys										
1987	178	3,828	0	4,006	33	4	266	3,707	15.2	57.8
1988	266	3,968	0	4,234	51	5	250	3,928	15.9	61.5
1989 F	250	4,216	0	4,466	44	4	260	4,158	16.7	64-65
1990 F	260	4,400	0	4,660	48	4	280	4,328	17.2	57-63
Total poultry										
1987	365	20,065	0	20,430	800	157	479	18,994	77.8	--
1988	479	20,786	0	21,265	842	163	442	19,818	80.4	--
1989 F	442	22,116	0	22,558	1,004	148	445	20,961	84.3	--
1990 F	445	23,587	0	24,032	988	148	460	22,436	89.4	--
Red meat & poultry										
1987	1,044	58,749	3,532	63,326	1,521	343	1,224	60,238	213.1	--
1988	1,224	60,790	3,594	65,608	1,728	356	1,288	62,235	218.3	--
1989 F	1,288	61,662	3,190	66,140	2,239	349	1,152	62,400	218.4	--
1990 F	1,152	63,503	3,203	67,858	2,314	350	1,171	64,023	223.0	--

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry.  
 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was .71 for 1987, & 70.5 for 1988-90.) 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Choice steers, Omaha 1,000-1,100 lb.; pork: barrows and gilts, 7 markets; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast. -- = not available.

Information contacts: Polly Cochran, or Maxine Davis (202) 786-1284.



Table 11.—U.S. Egg Supply &amp; Use

	Beg. stocks	Pro-duction	Im-ports	Total supply	Ex-ports	Ship-ments	Hatch-ing use	Ending stocks	Consumption		Wholesale price*
									Total	Per capita	
										No.	Cts./doz.
Million dozen											
1985	11.1	5,688.0	12.7	5,711.8	70.6	30.3	548.1	10.7	5,052.0	253.3	66.4
1986	10.7	5,705.0	13.7	5,729.4	101.6	28.0	566.8	10.4	5,022.6	249.4	71.1
1987	10.4	5,802.3	5.6	5,818.3	111.2	25.1	599.1	14.4	5,068.5	249.3	61.6
1988	14.4	5,771.6	5.3	5,791.3	141.8	26.0	604.6	15.2	5,003.7	243.7	62.1
1989 F	15.2	5,597.5	28.1	5,640.8	100.9	24.0	641.1	10.0	4,864.7	234.8	78-82
1990 F	10.0	5,700.0	10.0	5,722.0	104.0	25.0	675.0	10.0	4,908.0	234.8	67-71

\* Cartoned grade A large eggs, New York. F = forecast.

Information contact: Maxine Davis (202) 786-1714.

Table 12.—U.S. Milk Supply & Use<sup>1</sup>

	Pro-duction	Farm use	Commercial		Im-ports	Total commercial supply	CCC net removals	Commercial		All milk price 2/
			Farm market-ings	Beg. stocks				Ending stocks	Disap-pear-ance	
										\$/cwt
Billion pounds										
1981	132.8	2.3	130.5	5.8	2.3	138.5	12.9	5.4	120.3	13.77
1982	135.5	2.4	133.1	5.4	2.5	141.0	14.3	4.6	122.1	13.61
1983	139.7	2.4	137.3	4.6	2.6	144.5	16.8	5.2	122.5	13.58
1984	135.4	2.9	132.5	5.2	2.7	140.5	8.6	4.9	126.9	13.46
1985	143.1	2.5	140.7	4.9	2.8	148.4	13.2	4.6	130.6	12.75
1986	143.4	2.4	141.0	4.6	2.7	148.3	10.6	4.2	133.5	12.51
1987	142.5	2.2	140.3	4.2	2.5	146.9	6.7	4.6	135.6	12.54
1988	145.5	2.2	143.3	4.6	2.4	150.3	8.9	4.3	137.1	12.24
1989 F	145.7	2.2	143.5	4.3	2.3	150.1	8.7	4.2	137.2	13.40

1/ Milkfat basis. Totals may not add because of rounding. 2/ Delivered to plants & dealers; does not reflect deductions. F = forecast.

Information contact: Jim Miller (202) 786-1770.

Table 13.—Poultry &amp; Eggs

	Annual			1988		1989				
	1986	1987	1988	Sept	Apr	May	June	July	Aug	Sept
<b>Broilers</b>										
Federally inspected slaughter, certified (mil. lb.)	14,265.6	15,502.5	15,984.0	1,378.7	1,335.9	1,538.5	1,514.5	1,365.0	1,604.9	1,424.0
Wholesale price, 12-city (cts./lb.)	56.9	47.4	56.3	62.8	63.5	70.4	67.4	62.0	57.3	59.9
Price of grower feed (\$/ton)	187	186	220	244	243	238	237	237	233	239
Broiler-feed price ratio 1/	3.7	3.7	3.1	3.2	3.2	3.8	3.6	3.3	3.1	3.1
Stocks beginning of period (mil. lb.)	26.6	23.9	24.8	31.1	32.4	37.9	35.3	34.3	34.9	39.7
Broiler-type chicks hatched (mil.) 2/	5,013.3	5,379.2	5,588.7	455.2	493.5	522.9	509.8	511.7	509.3	484.0
<b>Turkeys</b>										
Federally inspected slaughter, certified (mil. lb.)	3,133	3,717	3,903	365.8	268.8	356.9	388.6	360.4	430.3	385.6
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	72.2	57.8	61.3	76.0	68.3	72.1	73.0	66.4	62.6	57.9
Price of turkey grower feed (\$/ton)	215	213	243	267	256	255	251	252	250	249
Turkey-feed price ratio 1/	4.1	3.9	3.0	3.4	3.3	3.4	3.5	3.3	3.3	3.0
Stocks beginning of period (mil. lb.)	150.2	178.2	282.4	551.9	269.2	298.5	355.6	454.6	496.7	574.3
Poults placed in U.S. (mil.)	225.4	240.4	242.0	15.7	26.4	28.6	29.1	26.5	23.0	19.9
<b>Eggs</b>										
Farm production (mil.)	68,460	69,627	69,253	5,580	5,565	5,683	5,478	5,626	5,591	5,433
Average number of layers (mil.)	278	280	286	274	267	267	266	265	266	267
Rate of lay (eggs per layer on farms)	248	248	251	20.4	20.7	21.3	20.6	21.2	21.0	20.4
Cartoned price, New York, grade A large (cts./doz.) 3/	71.1	61.6	62.1	75.7	76.6	73.7	75.2	76.5	84.2	83.8
Price of laying feed (\$/ton)	174	170	202	235	211	210	211	210	209	209
Egg-feed price ratio 1/	7.0	7.6	5.3	5.4	6.2	5.9	6.0	6.1	6.8	6.8
<b>Stocks, first of month</b>										
Shell (mil. doz.)	.72	1.16	1.29	.75	.48	.54	.78	.81	.36	.51
Frozen (mil. doz.)	10.0	9.8	13.1	18.6	11.2	11.7	12.3	11.4	12.5	11.4
Replacement chicks hatched (mil.)	424	428	366	30.9	35.9	38.3	34.7	30.2	32.4	32.7

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 12 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 786-1714.

Table 14.—Dairy

	Annual			1988		1989				
	1986	1987	1988	Sept	Apr	May	June	July	Aug	Sept
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/	11.30	11.23	11.03	11.48	11.09	11.12	11.33	11.76	12.37	13.10
Wholesale prices										
Butter, grade A Chi. (cts./lb.)	144.5	140.2	132.5	134.3	131.0	131.0	131.0	130.3	132.8	125.1
Am. cheese, Wis. assembly pt. (cts./lb.)	127.3	123.2	123.8	134.6	120.4	123.9	130.8	140.6	143.2	155.8
Nonfat dry milk (cts./lb.) 2/	80.6	79.3	80.2	87.2	81.1	84.5	88.5	96.2	110.7	121.7
USDA net removals										
Total milk equiv. (mil. lb.) 3/	10,628.1	6,706.0	8,856.2	142.3	1,398.8	1,468.3	863.5	167.1	-69.5	162.9
Butter (mil. lb.)	287.6	187.3	312.6	5.0	64.1	66.4	40.3	7.7	-5.1	7.7
Am. cheese (mil. lb.)	468.4	282.0	238.1	3.4	7.0	9.3	2.9	.2	3.1	0
Nonfat dry milk (mil. lb.)	827.3	559.4	267.5	0	0	0	0	0	0	0
Milk										
Milk prod. 21 States (mil. lb.)	121,433	121,294	123,896	9,967	10,770	11,095	10,435	10,293	10,135	9,754
Milk per cow (lb.)	13,399	13,955	14,378	1,158	1,266	1,305	1,228	1,211	1,194	1,151
Number of milk cows (1,000)	9,063	8,692	8,617	8,604	8,510	8,505	8,501	8,497	8,490	8,477
U.S. milk production (mil. lb.)	143,381	142,557	145,527	6/11,672	6/12,661	6/13,043	6/12,268	6/12,117	6/11,931	6/11,482
Stock, beginning										
Total (mil. lb.)	13,695	12,867	7,440	10,992	11,000	11,870	13,245	13,937	13,817	13,308
Commercial (mil. lb.)	4,590	4,165	4,646	5,292	4,940	5,140	5,763	5,888	5,899	5,809
Government (mil. lb.)	9,105	8,702	2,794	5,700	6,059	6,729	7,482	8,048	7,918	7,499
Imports, total (mil. lb.) 3/	2,733	2,490	2,394	178	177	162	179	194	240	240
Commercial disappearance (mil. lb.)	133,498	135,657	137,187	11,945	11,056	10,925	11,275	11,944	12,142	--
Butter										
Production (mil. lb.)	1,202.4	1,104.1	1,207.5	83.3	124.7	122.5	95.3	72.2	80.1	82.1
Stocks, beginning (mil. lb.)	205.5	193.0	143.2	294.4	341.9	379.1	438.3	464.2	461.0	439.2
Commercial disappearance (mil. lb.)	922.9	902.5	909.8	88.4	55.6	35.3	53.4	60.8	88.5	--
American cheese										
Production (mil. lb.)	2,798.2	2,716.7	2,756.6	208.5	236.2	247.0	240.0	226.8	214.0	200.3
Stocks, beginning (mil. lb.)	850.2	697.1	370.4	388.1	284.6	288.7	311.8	317.4	315.9	306.4
Commercial disappearance (mil. lb.)	2,382.8	2,437.1	2,570.0	223.4	228.8	220.4	237.3	227.8	220.4	--
Other cheese										
Production (mil. lb.)	2,411.1	2,627.7	2,815.0	243.4	236.4	247.9	245.6	237.8	246.4	246.8
Stocks, beginning (mil. lb.)	94.1	92.0	89.7	109.7	110.9	117.0	115.8	120.4	118.3	117.6
Commercial disappearance (mil. lb.)	2,684.9	2,880.2	3,034.1	264.7	245.6	265.9	258.7	259.8	271.8	--
Nonfat dry milk										
Production (mil. lb.)	1,284.1	1,056.8	978.5	59.2	99.8	99.8	81.0	60.8	53.9	46.3
Stocks, beginning (mil. lb.)	1,011.1	686.8	177.2	92.9	88.3	100.8	100.7	78.3	66.9	56.9
Commercial disappearance (mil. lb.)	479.1	492.9	733.1	68.2	86.5	99.4	101.9	71.6	63.8	--
Frozen dessert										
Production (mil. gal.) 4/	1,248.6	1,260.7	1,246.9	106.9	104.3	122.6	128.4	122.5	122.1	101.2
	Annual			1988				1989		
	1986	1987	1988	I	II	III	IV	I	II P	III P
Milk production (mil. lb.)	143,381	142,557	145,527	36,197	37,871	36,025	35,434	36,647	37,972	35,530
Milk per cow (lb.)	13,260	13,802	14,213	3,519	3,697	3,526	3,471	3,611	3,755	3,516
No. of milk cows (1,000)	10,813	10,329	10,239	10,285	10,244	10,218	10,208	10,148	10,112	10,104
Milk-feed price ratio 5/	1.73	1.83	1.58	1.74	1.51	1.46	1.59	1.56	1.48	1.62
Returns over concentrate 5/ costs (\$/cwt milk)	9.23	9.52	9.05	9.34	8.33	8.53	9.86	9.63	8.80	9.80

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area, high heat spray process.  
3/ Milk equivalent, fat basis. 4/ Ice cream, ice milk, & hard sherbet. 5/ Based on average milk price after adjustment for price support deductions. 6/ Estimated. P = preliminary. -- = not available.

Information contact: Jim Miller (202) 786-1770.

Table 15.—Wool

	Annual			1988		1989				
	1986	1987	1988	Sept	Apr	May	June	July	Aug	Sept P
U.S. wool price, 1/ (cts./lb.)	191	265	438	450	375	375	365	350	350	350
Imported wool price, 2/ (cts./lb.)	201	247	372	362	363	339	323	325	330	333
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	126,768	129,677	117,069	9,548	10,400	8,700	11,908	9,332	9,741	10,733
Carpet wool (1,000 lb.)	9,960	13,092	15,633	1,700	1,595	1,362	1,517	1,155	1,472	1,513

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up.  
2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. P = preliminary.

Information contact: John Lawler (202) 786-1840.



Table 16.—Meat Animals

	Annual			1988						
	1986	1987	1988	Sept	Apr	May	June	July	Aug	Sept
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	7,920	7,643	8,066	6,689	8,012	7,847	7,555	7,010	6,568	6,431
Placed on feed (1,000 head)	20,035	21,040	20,584	2,169	1,534	1,619	1,268	1,311	1,618	1,928
Marketings (1,000 head)	19,263	19,410	19,698	1,647	1,570	1,747	1,751	1,690	1,679	1,564
Other disappearance (1,000 head)	1,049	1,207	1,187	67	129	164	62	63	76	47
Beef steer-corn price ratio,										
Omaha 2/	31.0	41.0	31.5	26.4	30.2	29.4	28.9	29.6	32.0	30.8
Hog-corn price ratio, Omaha 2/	27.8	32.8	19.6	15.9	14.8	16.8	18.5	19.6	20.9	19.8
Market prices (\$/cwt)										
Slaughter cattle										
Choice steers, Omaha	57.75	64.60	69.54	67.71	75.31	74.52	71.71	70.74	71.09	68.44
Utility cows, Omaha	37.19	44.83	46.55	48.42	45.19	45.57	48.56	49.12	49.13	52.42
Choice vealers, S. St. Paul 3/	59.92	78.74	90.23	240.42	266.25	260.05	258.44	246.88	263.00	258.75
Feeder cattle										
Choice, Kansas City, 600-700 lb.	62.79	75.36	83.67	84.00	82.63	83.50	85.38	87.13	88.40	88.63
Slaughter hogs										
Barrows & gilts, 7-markets	51.19	51.69	43.39	41.04	37.06	42.37	46.10	47.06	46.84	44.32
Feeder pigs										
S. Mo. 40-50 lb. (per head)	45.62	46.69	38.88	28.30	34.74	34.24	28.85	24.25	29.80	32.66
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	69.46	78.09	68.84	61.00	78.17	73.56	72.63	67.79	67.28	63.81
Ewes, Good, San Angelo	34.78	38.62	38.88	37.38	42.45	38.95	37.10	31.92	30.65	30.31
Feeder lambs										
Choice, San Angelo	73.14	102.26	90.91	78.56	88.06	78.18	75.94	74.08	75.50	76.06
Wholesale meat prices, Midwest										
Choice steer beef, 600-700 lb.	88.98	97.21	103.34	103.15	113.84	112.62	106.35	104.91	104.31	102.08
Canner & cutter cow beef	71.31	83.70	87.77	87.73	89.77	89.74	93.83	95.24	95.32	99.13
Pork loins, 14-18 lb. 4/	104.78	106.23	97.49	97.92	91.59	99.95	108.28	115.10	110.03	105.25
Pork bellies, 12-14 lb.	65.82	63.11	41.25	33.28	25.49	29.11	32.90	31.52	28.82	34.23
Hams, skinned, 14-17 lb.	80.01	80.96	71.03	73.20	61.60	63.30	64.00	64.23	68.00	69.13
All fresh beef retail price 5/	--	212.64	224.81	228.01	238.40	239.44	237.30	240.57	240.11	241.00
Commercial slaughter (1,000 head)*										
Cattle	37,288	35,647	35,072	3,010	2,644	3,024	3,025	2,794	3,045	2,772
Steers	17,516	17,443	17,341	1,437	1,336	1,521	1,506	1,385	1,491	1,352
Heifers	11,097	10,906	10,755	993	763	907	952	903	972	873
Cows	7,961	6,610	6,334	522	493	540	508	452	519	489
Bulls & stags	714	689	642	58	52	56	59	54	63	58
Calves	3,408	2,815	2,504	215	158	163	167	174	195	179
Sheep & lambs	5,635	5,199	5,293	469	409	447	437	413	494	457
Hogs	79,598	81,081	87,738	7,719	7,380	7,480	7,079	6,295	7,587	7,680
Commercial production (mil. lb.)										
Beef	24,213	23,405	23,419	2,041	1,757	1,998	2,022	1,889	2,091	1,912
Veal	509	416	387	33	27	29	29	27	29	28
Lamb & mutton	331	309	329	28	26	28	26	25	29	28
Pork	13,998	14,312	15,614	1,360	1,321	1,341	1,266	1,107	1,333	1,349
	Annual			1988			1989			
	1986	1987	1988	II	III	IV	I	II	III	IV
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	9,754	9,245	9,769	9,385	9,001	8,591	9,408	9,678	8,455	8,061
Placed on feed (1,000 head)	23,583	24,894	24,353	5,893	5,986	6,650	6,212	5,177	5,689	--
Marketings (1,000 head)	22,856	22,991	23,339	5,859	6,171	5,486	5,598	5,985	5,856	7/5,370
Other disappearance (1,000 head)	1,236	1,379	1,375	418	225	347	344	415	227	--
Hogs & pigs (10 States) 6/										
Inventory (1,000 head) 1/	41,100	39,690	42,995	41,345	44,065	45,000	43,210	41,605	44,100	45,800
Breeding (1,000 head) 1/	5,258	5,110	5,510	5,520	5,630	5,460	5,335	5,420	5,560	5,385
Market (1,000 head) 1/	35,842	34,580	37,485	35,825	38,435	39,540	37,875	36,185	38,540	40,415
Farrowings (1,000 head)	8,223	8,838	9,316	2,578	2,359	2,261	2,109	2,575	2,380	7/2,278
Pig crop (1,000 head)	63,835	68,888	71,848	20,175	18,007	17,216	16,439	20,256	18,604	--

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Per head starting September 1988. 4/ Prior to 1984, 8-14 lb.; 1984 & 1985, 14-17 lb.; beginning 1986, 14-18 lb. 5/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 6/ Quarters are Dec. of preceding year-Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 7/ Intentions. \*Classes estimated. -- = not available.

Information contacts: Polly Cochran (202) 786-1284.

# Crops & Products

Table 17.—Supply & Utilization<sup>1,2</sup>

	Area						Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price
	Set aside 3/	Planted	Harvested	Yield	Production	Total supply 4/						5/
	Mil. acres			Bu./acre								\$/bu.
Wheat												
1984/85	18.3	79.2	66.9	38.8	2,595	4,003	405	749	1,424	2,578	1,425	3.39
1985/86	18.8	75.6	64.7	37.5	2,425	3,866	279	767	915	1,961	1,905	3.08
1986/87	21.0	72.1	60.7	34.4	2,092	4,018	413	780	1,004	2,197	1,821	2.42
1987/88	23.9	65.8	56.0	37.7	2,107	3,945	281	811	1,592	2,684	1,261	2.57
1988/89*	22.5	65.5	53.2	34.1	1,811	3,095	143	830	1,424	2,397	698	3.72
1989/90*	9.7	76.6	62.1	32.9	2,042	2,760	200	842	1,275	2,317	443	3.85-4.00
Rice												
	Mil. acres			Lb./acre				Mil. cwt (rough equiv.)				\$/cwt
1984/85	.79	2.83	2.80	4,954	138.8	187.3	--	6/60.5	62.1	122.6	64.7	8.04
1985/86	1.24	2.51	2.49	5,414	134.9	201.8	--	6/65.8	58.7	124.5	77.3	6.53
1986/87	1.48	2.38	2.36	5,651	133.4	213.3	--	6/77.7	84.2	161.9	51.4	3.75
1987/88	1.57	2.36	2.33	5,555	129.6	184.0	--	6/80.4	72.2	152.6	31.4	7.27
1988/89*	1.09	2.93	2.90	5,511	159.5	195.1	--	6/82.9	85.6	168.4	26.7	6.50-7.00
1989/90*	1.21	2.77	2.75	5,697	156.4	188.1	--	6/85.4	79.0	164.4	23.7	6.00-8.00
Corn												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1984/85	3.9	80.5	71.9	106.7	7,674	8,684	4,079	1,091	1,865	7,036	1,648	2.63
1985/86	5.4	83.4	75.2	118.0	8,877	10,536	4,095	1,160	1,241	6,496	4,040	2.23
1986/87	14.3	76.7	69.2	119.3	8,250	12,291	4,714	1,192	1,504	7,410	4,882	1.50
1987/88	23.0	65.7	59.2	119.4	7,072	11,958	4,738	1,229	1,732	7,699	4,259	1.94
1988/89*	20.5	67.6	58.2	84.6	4,921	9,185	3,950	1,245	2,060	7,255	1,930	2.54
1989/90*	10.2	72.3	65.1	116.6	7,590	9,523	4,200	1,275	2,150	7,625	1,898	2.00-2.40
Sorghum												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1984/85	.6	17.3	15.4	56.4	866	1,154	539	18	297	854	300	2.32
1985/86	.9	18.3	16.8	66.8	1,120	1,420	664	28	178	869	551	1.93
1986/87	3.0	15.3	13.9	67.7	938	1,489	535	12	198	746	743	1.37
1987/88	4.1	11.8	10.6	69.7	739	1,483	564	25	231	820	663	1.70
1988/89*	3.9	10.4	9.1	63.8	578	1,240	470	22	310	802	438	2.27
1989/90*	2.9	11.9	10.5	59.8	629	1,067	500	15	250	765	302	1.85-2.25
Barley												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1984/85	.5	12.0	11.2	53.4	599	799	304	170	77	551	247	2.29
1985/86	.7	13.2	11.6	51.0	591	848	333	169	22	523	325	1.98
1986/87	2.1	13.1	12.0	50.8	611	944	298	174	137	608	336	1.61
1987/88	2.9	11.0	10.1	52.7	530	879	258	174	126	558	321	1.81
1988/89*	2.8	9.9	7.7	38.2	294	627	165	180	85	430	197	2.79
1989/90*	2.2	9.2	8.3	48.6	405	616	190	180	85	455	161	2.35-2.55
Oats												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1984/85	.1	12.4	8.2	58.0	474	689	433	74	1	509	180	1.67
1985/86	.1	13.3	8.2	63.7	521	728	460	82	2	544	184	1.23
1986/87	.6	14.7	6.9	56.3	386	603	395	73	3	471	133	1.21
1987/88	.8	18.0	6.9	54.0	374	553	361	79	1	441	112	1.56
1988/89*	.3	13.9	5.6	39.2	219	399	200	100	1	301	98	2.61
1989/90*	.3	12.1	6.8	54.3	371	524	300	110	2	412	112	1.40-1.60
Soybeans												
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
1984/85	0	67.8	66.1	28.1	1,861	2,037	7/93	1,030	598	1,721	316	5.84
1985/86	0	63.1	61.6	34.1	2,099	2,415	7/86	1,053	740	1,879	536	5.05
1986/87	0	60.4	58.3	33.3	1,940	2,476	7/104	1,179	757	2,040	436	4.78
1987/88	0	58.0	57.0	33.7	1,923	2,359	7/81	1,174	802	2,057	302	5.88
1988/89*	0	58.9	57.5	26.9	1,548	1,850	7/80	1,058	530	1,668	182	7.35
1989/90*	0	60.5	59.1	32.8	1,937	2,119	7/94	1,115	575	1,784	335	5.00-6.00
Soybean oil												
								Mil. lbs.				8/ Cts./lb.
1984/85	--	--	--	--	11,468	12,209	--	9,917	1,660	11,577	632	29.50
1985/86	--	--	--	--	11,617	12,257	--	10,053	1,257	11,310	947	18.00
1986/87	--	--	--	--	12,783	13,745	--	10,833	1,187	12,020	1,725	15.40
1987/88	--	--	--	--	12,974	9/14,895	--	10,930	1,873	12,803	2,092	22.65
1988/89*	--	--	--	--	11,737	9/13,969	--	10,654	1,600	12,050	1,715	21.10
1989/90*	--	--	--	--	12,260	9/13,990	--	11,000	1,450	12,450	1,540	19.0-22.0
Soybean meal												
								1,000 tons				10/ \$/ton
1984/85	--	--	--	--	24,529	24,784	--	19,480	4,917	24,397	387	125
1985/86	--	--	--	--	24,951	25,338	--	19,090	6,036	25,126	212	155
1986/87	--	--	--	--	27,758	27,970	--	20,587	7,343	27,730	240	163
1987/88	--	--	--	--	28,060	28,300	--	21,293	6,854	28,147	153	222
1988/89*	--	--	--	--	24,943	25,096	--	19,823	5,100	24,923	173	233
1989/90*	--	--	--	--	26,450	26,623	--	21,273	5,100	26,373	250	150-180

See footnotes at end of table.



Table 17.—Supply &amp; Utilization, continued

	Area			Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price 5/
	Set aside 3/	Planted	Harvested									
	Mil. acres		Lb./acre				Mil. bales				Cts./lb.	
Cotton 11/												
1984/85	2.5	11.1	10.4	600	13.0	15.8	--	5.5	6.2	11.8	4.1	58.70
1985/86	3.6	10.7	10.2	630	13.4	17.6	--	6.4	2.0	8.4	9.4	56.50
1986/87	4.2	10.0	8.5	552	9.7	19.1	--	7.4	6.7	14.1	5.0	52.40
1987/88	4.0	10.4	10.0	706	14.8	19.8	--	7.6	6.6	14.2	5.8	64.30
1988/89*	2.2	12.5	11.9	619	15.4	21.2	--	7.8	6.2	14.0	7.1	59.50
1989/90*	3.5	10.5	9.6	607	12.1	19.2	--	8.2	7.8	16.0	3.3	--

\*November 9, 1989 Supply and Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats, August 1 for cotton & rice, September 1 for soybeans, corn, & sorghum, October 1 for soybean & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2,204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 680-pound bales of cotton. 3/ Includes diversion, P&K, acreage reduction, 50-92, & 0-92 programs. 4/ Includes imports. 5/ Market average prices do not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Average of crude soybean oil, Decatur. 9/ Includes 196 million pounds in imports for 1987/88, 140 million in 1988/89, and 15 million in 1989/90. 10/ Average of 44 percent, Decatur. 11/ Upland & extra long staple. Stock estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. -- = not available or not applicable.

Information contact: Commodity Economics Division, Crops Branch (202) 786-1840.

Table 18.—Food Grains

	Marketing year 1/				1988		1989				
	1985/86	1986/87	1987/88	1988/89	Sept	May	June	July	Aug	Sept	
Wholesale prices											
Wheat, No. 1 HRW,											
Kansas City (\$/bu.) 2/	3.28	2.72	2.96	4.17	4.03	4.55	4.41	4.28	4.24	4.18	
Wheat, DNS,											
Minneapolis (\$/bu.) 2/	3.25	2.62	2.92	4.25	4.16	4.50	4.29	4.21	4.22	4.23	
Rice, S.W. La. (\$/cwt) 3/	16.11	10.25	19.25	14.85	16.10	15.40	15.50	15.60	16.40	15.90	
Wheat											
Exports (mil. bu.)	915	1,004	1,592	1,424	130	97	92	140	138	--	
Mill grind (mil. bu.)	703	755	753	778	66	63	59	61	72	--	
Wheat flour production (mil. cwt)	314	335	336	348	29	28	26	27	32	--	
Rice											
Exports (mil. cwt, rough equiv.)	58.7	84.2	72.2	85.6	7.9	11.6	4.0	1.1	8.1	--	

	Marketing year 1/			1988				1989		
	1986/87	1987/88	1988/89	Dec-Feb	Mar-May	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	June-Aug
Wheat										
Stocks, beginning (mil. bu.)	1,905	1,821	1,261	2,500.6	1,923.5	1,260.8	2,253.6	1,709.9	1,221.7	697.6
Domestic use										
Food (mil. bu.)	696	726	727	170.8	181.6	181.4	196.4	175.8	173.0	191.2
Seed, feed & residual (mil. bu.) 4/	497	366	246	-4.2	24.0	282.4	23.6	-43.0	-8.0	273.4
Exports (mil. bu.)	1,004	1,592	1,424	413.1	460.6	363.4	330.1	363.0	368.1	369.9

1/ Beginning June 1 for wheat & August 1 for rice. 2/ Ordinary protein. 3/ Long grain, milled basis. 4/ Residual includes feed use. -- = not available.

Information contacts: Ed Allen & Janet Livezey (202) 786-1840.

Table 19.—Cotton

	Marketing year 1/				1988		1989				
	1985/86	1986/87	1987/88	1988/89	Sept	May	June	July	Aug	Sept	
U.S. price, SLM,											
1-1/16 in. (cts./lb.) 2/	60.0	53.2	63.1	57.7	51.3	63.7	64.1	67.5	69.9	68.5	
Northern Europe prices											
Index (cts./lb.) 3/	48.9	62.0	72.7	66.4	56.8	77.3	78.8	83.0	83.0	81.8	
U.S. M 1-3/32 in. (cts./lb.) 4/	64.8	61.8	76.3	69.2	60.5	76.9	77.9	77.2	84.5	83.0	
U.S. mill consumpt. (1,000 bales)	6,399	7,452	7,617	7,792	618	755	716	597	800	733	
Exports (thou bales)	1,969	6,684	6,582	6,211	265	682	254	902	532	551	
Stocks, beginning (1,000 bales)	4,102	9,348	5,026	5,771	5,656	11,350	9,914	8,914	7,093	6,154	

1/ Beginning August 1. 2/ Average spot market. 3/ Liverpool Outlook (A) index; average of five lowest priced of 11 selected growths. 4/ Memphis territory growths.

Information contact: Bob Skinner (202) 786-1840.

Table 20.—Feed Grains

	Marketing year 1/				1988	1989				
	1984/85	1985/86	1986/87	1987/88	Sept	May	June	July	Aug	Sept
<b>Wholesale prices</b>										
Corn, no. 2 yellow, 30 day, Chicago (\$/bu.)	2.79	2.35	1.64	2.14	2.79	2.77	2.66	2.50	2.30	2.32
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	4.46	3.72	2.73	3.40	4.27	4.29	4.15	3.96	3.88	2.65
Barley, feed, Duluth (\$/bu.) 2/	2.09	1.53	1.44	1.78	2.24	2.41	2.12	2.22	2.17	2.14
Barley, malting, Minneapolis (\$/bu.)	2.55	2.24	1.89	2.04	4.40	3.84	3.02	3.33	3.57	3.42
Exports 3/										
Corn (mil. bu.)	1,865	1,241	1,504	1,735	155.3	212.8	225.4	135.2	109.3	--
Feed grains (mil. metric tons) 4/	56.6	36.6	46.3	52.9	4.8	6.1	6.5	4.3	3.6	--
	Marketing year 1/				1988	1989				
	1984/85	1985/86	1986/87	1987/88	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	June-Aug P	Sept.-Nov.
<b>Corn</b>										
Stocks, beginning (mil. bu.)	1,006	1,648	4,040	4,882	5,836	4,259	7,072	5,204	3,419	1,930
Domestic use										
Feed (mil. bu.)	4,079	4,095	4,714	4,735	839	1,334	1,077	849	690	--
Food, seed, ind. (mil. bu.)	1,091	1,160	1,192	1,229	324	294	284	337	330	--
Exports (mil. bu.)	1,865	1,241	1,504	1,720	414	482	508	600	470	--
Total use (mil. bu.)	7,036	6,496	7,410	7,690	1,577	2,109	1,869	1,787	1,490	--

1/ September 1 for corn & sorghum; June 1 for oats & barley. 2/ Beginning March 1987 reporting point changed from Minneapolis to Duluth. 3/ Includes products. 4/ Aggregated data for corn, sorghum, oats, & barley. P = preliminary. -- not available.

Information contact: Joy Harwood (202) 786-1840.

Table 21.—Fats &amp; Oils

	Marketing year *				1988	1989				
	1984/85	1985/86	1986/87	1987/88	Aug	Apr	May	June	July	Aug
<b>Soybeans</b>										
Wholesale price, no. 1 yellow, Chicago (\$/bu.)	5.88	5.20	5.03	6.67	8.25	7.25	7.30	7.17	6.97	5.98
Crushings (mil. bu.)	1,030.5	1,052.8	1,178.8	1,174.5	78.3	89.6	87.0	76.0	74.0	75.6
Exports (mil. bu.)	598.2	740.7	756.9	801.6	37.2	41.4	23.6	31.6	16.7	18.3
Stocks, beginning (mil. bu.)	175.7	316.0	536.0	436.0	66.2	99.2	72.8	52.5	46.1	31.0
<b>Soybean oil</b>										
Wholesale price, crude, Decatur (cts./lb.)	29.52	18.02	15.36	22.92	27.16	21.97	22.23	20.75	19.66	18.08
Production (mil. lb.)	11,467.9	11,617.3	12,783.1	12,974.5	878.6	1,004.0	977.4	856.1	835.9	851.5
Domestic disap. (mil. lb.)	9,888.5	10,045.9	10,820.2	10,734.1	791.5	1,032.9	831.8	844.2	932.7	1,011.1
Exports (mil. lb.)	1,659.9	1,257.3	1,184.5	1,873.2	78.1	105.5	161.4	72.1	159.3	181.1
Stocks, beginning (mil. lb.)	720.5	632.5	946.6	1,725.0	2,203.3	2,893.4	2,759.0	2,743.2	2,683.1	2,426.9
<b>Soybean meal</b>										
Wholesale price, 44% protein, Decatur (\$/ton)	125.46	154.88	162.61	221.90	255.10	220.75	214.70	227.50	231.50	215.50
Production (1,000 ton)	24,529.3	24,951.3	27,758.8	28,060.2	1,872.5	2,126.6	2,061.2	1,802.9	1,749.2	1,796.8
Domestic disap. (1,000 ton)	19,481.3	19,117.2	20,387.4	21,275.9	1,759.7	1,456.7	1,565.1	1,664.6	1,568.2	1,734.7
Exports (1,000 ton)	4,916.5	6,009.3	7,343.0	6,871.0	285.6	610.9	532.4	180.8	134.0	177.1
Stocks, beginning (1,000 ton)	255.4	386.9	211.7	240.2	437.4	237.9	296.8	260.4	218.0	264.9
<b>Margarine, wholesale price, Chicago, white (cts./lb.)</b>										
	55.5	51.2	40.3	40.3	58.1	55.76	55.15	53.76	53.26	51.6

\* Beginning September 1 for soybeans; October 1 for soybean meal & oil; calendar year for margarine.

Information contacts: Roger Hoskin (202) 786-1840, Tom Bickerton (202) 786-1824.



Table 22.—Farm Programs, Price Supports, Participation &amp; Payment Rates

				Payment rates					
	Target price	Loan rate	Findley loan rate	Deficiency	Paid land diversion	PIK	Base acres 1/	Program 2/	Participation rate 3/

1/ Includes planted area plus acres considered planted (ARP, PLO, 0-92 etc). Net of CRP. 2/ Percentage of base acres that farmers participating in Acreage Reduction Programs/Paid Land Diversion/PIK were required to devote to conserving uses to receive program benefits. 3/ Percentage of base acres enrolled in Acreage Reduction Programs/Paid Land Diversion/PIK. 4/ Percent of program yield, except 1986/87 wheat, which is dollars per bushel. 1984 PIK rates apply only to the 10-20 portion. 5/ Rates for payments received in cash were reduced by 4.3 percent in 1986/87 due to Gramm-Rudman-Hollings. 6/ Annual average world market price. 7/ Guaranteed to farmers signed up for 0/92. 8/ The sorghum, oats, & barley programs were the same as for corn in each year except 1988-90, when the oats ARP was lower than for the other feed grains. 9/ There are no target prices, acreage programs, or payment rates for soybeans. 10/ Loan rate was not to be announced prior to August 1, 1989. 11/ Loan repayment rate. 12/ Loans may be repaid at the lower of the loan rate or world market prices. \* On September 13, the Secretary announced that participating farmers have the option of planting up to 105 percent of their wheat base to boost 1990 supplies. For every acre planted in excess of 95 percent of base, the acreage used to compute deficiency payments will be cut by 1 acre. -- = not available.

Information contact: Joy Harwood (202) 786-1840.

Table 23.—Fruit

	1981	1982	1983	1984	1985	1986	1987	1988	1989 F			
Citrus 1/												
Production (1,000 tons)	15,105	12,057	13,608	10,792	10,525	11,051	11,968	13,134	11,800			
Per capita consumpt. (lbs.) 2/	104.4	109.3	120.0	102.8	109.1	117.3	112.8	113.6	--			
Noncitrus 3/												
Production (1,000 tons)	13,332	14,659	14,154	14,291	14,189	13,918	16,010	15,842	14,357			
Per capita consumpt. (lbs.) 2/	88.0	89.2	88.7	93.9	91.8	96.4	101.5	97.7	--			
	1988				1989							
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
F.o.b. shipping point prices												
Apples (\$/carton) 4/	13.80	12.15	12.63	10.78	13.94	12.32	11.25	9.41	7.86	9.55	11.31	10.49
Pears (\$/box) 5/	--	12.48	12.33	9.70	10.58	10.75	9.73	13.67	14.38	--	--	--
Grower Prices												
Oranges (\$/box) 6/	5.48	5.82	6.50	6.20	6.21	5.27	6.64	8.52	8.10	5.04	3.91	5.62
Grapefruit (\$/box) 6/	7.57	4.77	4.71	3.72	3.34	3.36	3.28	4.05	4.85	4.62	5.63	6.10
Stocks, ending												
Fresh apples (mil. lbs.)	4,601.8	3,904.3	3,265.8	2,659.6	2,094.6	1,544.2	1,069.1	619.3	347.3	174.9	8.0	2,521.9
Fresh pears (mil. lbs.)	425.7	368.3	295.5	234.6	162.9	115.1	57.7	26.6	6.4	11.0	157.9	446.2
Frozen fruits (mil. lbs.)	1,116.0	1,011.8	937.3	834.5	759.3	671.4	601.7	574.3	621.4	722.5	850.3	855.1
Frozen orange juice (mil. lbs.)	639.7	587.7	721.6	980.9	1,151.1	1,086.8	1,204.2	1,296.1	1,296.9	1,140.0	946.9	816.7

1/ Crop year beginning with year indicated. 2/ Per capita consumption for total U.S. population, including military consumption of both fresh and processed fruit in fresh weight equivalent. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. -- = not available. F = preliminary. F = forecast.

Information contact: Wynne Happer (202) 786-1885.

Table 24.—Vegetables

	Calendar year													
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988				
Production														
Total vegetables (1,000 cwt) 1/	413,925	381,370	379,123	431,515	403,320	457,392	453,769	445,436	464,141	452,731				
Fresh (1,000 cwt) 1/ 2/	190,859	190,228	194,694	207,924	197,919	217,132	217,932	216,267	219,689	225,784				
Processed (tons) 3/	11,153,300	9,557,100	9,221,460	11,179,590	10,270,050	12,013,020	11,791,860	11,616,560	12,222,620	11,347,370				
Mushrooms (1,000 lbs.)	470,069	469,576	517,146	490,826	561,531	595,681	587,956	614,393	631,819	667,367				
Potatoes (1,000 cwt)	342,447	302,857	338,591	355,131	333,911	362,612	407,109	361,511	385,462	349,973				
Sweetpotatoes (1,000 cwt)	13,370	10,953	12,799	14,833	12,083	12,986	14,853	12,674	12,064	11,832				
Dry edible beans (1,000 cwt)	20,552	26,729	32,751	25,563	15,520	21,070	22,175	22,886	25,909	19,230				
	1988						1989							
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	
Shipments														
Fresh (1,000 cwt) 4/	15,215	16,475	20,999	16,535	18,041	18,754	24,944	20,887	35,676	31,223	21,599	21,914	15,030	
Potatoes (1,000 cwt)	9,963	9,958	13,948	11,092	11,137	10,697	14,733	13,005	15,768	9,991	8,466	10,678	9,005	
Sweetpotatoes (1,000 cwt)	262	305	876	460	246	278	441	229	190	20	19	187	288	

1/ 1983 data are not comparable with 1984 & 1985. 2/ Estimate reinstated for asparagus with the 1984 crop; all other years also include broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 3/ Estimates reinstated for cucumbers with the 1984 crop; all other years also include snap beans, sweet corn, green peas, & tomatoes. 4/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons. -- = not available.

Information contacts: Shannon Hamm or Cathy Greene (202) 786-1884.

Table 25.—Other Commodities

	Annual					1988		1989		
	1984	1985	1986	1987	1988	July-Sept	Oct-Dec	Jan-Mar	Apr-June	July-Sept
Sugar										
Production 1/	5,890	5,969	6,257	7,309	7,087	642	3,573	1,835	677	617
Deliveries 1/	8,454	8,035	7,786	8,167	8,188	2,147	2,107	1,902	2,056	2,161
Stocks, ending 1/	3,005	3,126	3,225	3,195	3,134	1,316	3,134	3,413	2,351	1,224
Coffee										
Composite green price										
W.Y. (cts./lb.)	142.95	137.46	185.18	109.14	115.59	114.20	120.75	126.67	118.01	72.29
Imports, green bean equiv. (mil. lbs.) 2/	2,411	2,550	2,596	2,638	2,072	594	472	586	535	784
	Annual			1988		1989				
	1986	1987	1988	June	July	Mar	Apr	May	June	July
Tobacco										
Prices at auctions 3/										
Flue-cured (\$/lb.)	1.52	1.59	1.61	--	--	--	--	--	--	--
Burley (\$/lb.)	1.60	1.56	1.61	--	--	--	--	--	--	--
Domestic consumption 4/										
Cigarettes (bil.)	584.0	575.0	562.5	52.7	31.4	51.7	44.4	52.9	51.5	26.8
Large cigars (mil.)	3,055	2,728	2,531	260.4	181.7	217.6	179.2	250.8	255.0	166.1

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. -- = not available.

Information contacts: sugar, Peter Buzzanell (202) 786-1888, coffee, Fred Gray (202) 786-1888, tobacco, Verner Grise (202) 786-1890.



Table 26.—World Supply & Utilization of Major Crops, Livestock, & Products

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89 P	1989/90 F
	Million units						
<b>Wheat</b>							
Area (hectares)	228.9	231.2	229.6	228.2	219.9	218.4	225.7
Production (metric tons)	489.3	511.9	500.1	530.7	501.7	500.8	532.2
Exports (metric tons) 1/	102.0	107.0	85.0	90.7	104.9	97.8	97.4
Consumption (metric tons) 2/	474.0	493.0	496.2	522.5	531.3	530.5	536.2
Ending stocks (metric tons) 3/	145.1	164.0	167.9	176.1	146.5	116.8	112.8
<b>Coarse grains</b>							
Area (hectares)	335.0	334.6	341.3	337.3	323.0	327.2	326.8
Production (metric tons)	688.1	815.8	843.3	835.5	791.7	729.1	807.8
Exports (metric tons) 1/	93.4	100.4	83.2	84.1	83.2	94.4	99.3
Consumption (metric tons) 2/	759.3	782.6	779.0	809.6	812.3	797.0	819.6
Ending stocks (metric tons) 3/	110.7	143.9	208.1	234.0	213.4	145.5	133.7
<b>Rice, milled</b>							
Area (hectares)	144.1	144.1	144.6	145.1	140.7	145.2	146.1
Production (metric tons)	307.9	318.8	318.8	318.3	312.9	328.7	330.9
Exports (metric tons) 4/	12.4	11.4	12.6	13.0	11.9	14.5	13.4
Consumption (metric tons) 2/	304.5	310.6	319.4	323.2	319.1	326.4	331.3
Ending stocks (metric tons) 3/	46.6	54.9	54.7	50.2	44.0	46.3	45.8
<b>Total grains</b>							
Area (hectares)	708.0	709.9	715.5	710.6	683.6	690.8	698.6
Production (metric tons)	1,485.3	1,646.5	1,662.2	1,684.5	1,606.3	1,558.6	1,670.9
Exports (metric tons) 1/	207.8	218.8	180.8	187.8	200.0	206.7	210.1
Consumption (metric tons) 2/	1,537.8	1,586.2	1,594.6	1,655.3	1,662.7	1,653.9	1,687.1
Ending stocks (metric tons) 3/	302.4	362.8	430.7	460.3	403.9	308.6	292.3
<b>Oilseeds</b>							
Crush (metric tons)	135.8	150.7	155.0	161.4	167.0	165.9	173.7
Production (metric tons)	165.0	191.1	196.1	194.2	208.0	202.6	214.6
Exports (metric tons)	33.0	33.1	34.5	37.7	39.5	31.7	33.6
Ending stocks (metric tons)	15.7	21.1	26.8	23.5	23.8	22.2	23.4
<b>Meals</b>							
Production (metric tons)	92.5	101.8	105.0	110.4	114.4	112.2	118.4
Exports (metric tons)	29.7	32.3	34.4	36.7	36.2	36.7	39.7
<b>Oils</b>							
Production (metric tons)	42.1	46.2	49.3	50.3	52.8	53.5	56.2
Exports (metric tons)	13.7	15.6	16.4	16.9	17.6	17.4	18.6
<b>Cotton</b>							
Area (hectares)	31.0	33.9	31.9	29.9	31.1	33.9	33.0
Production (bales)	65.6	88.2	79.6	70.4	81.0	84.1	80.6
Exports (bales)	19.2	20.2	20.2	26.0	23.1	25.9	25.2
Consumption (bales)	68.3	70.0	75.8	82.5	84.0	84.3	86.0
Ending stocks (bales)	24.0	42.4	47.2	34.7	32.0	31.0	25.4
	1983	1984	1985	1986	1987	1988	1989 F
<b>Red meat</b>							
Production (metric tons)	97.5	99.6	103.5	106.4	108.8	109.9	110.5
Consumption (metric tons)	95.8	97.6	101.5	105.3	107.1	108.6	109.0
Exports (metric tons) 1/	5.9	5.9	6.2	6.6	6.6	6.7	7.0
<b>Poultry</b>							
Production (metric tons)	24.4	25.2	26.2	27.4	29.2	30.1	31.3
Consumption (metric tons)	24.3	24.8	26.0	27.0	28.8	29.7	30.8
Exports (metric tons) 1/	1.3	1.3	1.2	1.3	1.5	1.5	1.6
<b>Dairy</b>							
Milk production (metric tons)	413.0	413.5	419.1	427.0	427.0	430.5	433.1

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1984 data correspond with 1983/84, etc. P = preliminary. F = forecast.

Information contacts: Frederic Surls (202) 786-1824; red meat & poultry, Linda Bailey (202) 786-1286; dairy, Sara Short (202) 786-1769.

## U.S. Agricultural Trade

Table 27.—Prices of Principal U.S. Agricultural Trade Products

	Annual			1989						
	1986	1987	1988	1988 Sept	Apr	May	June	July	Aug	Sept
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.19	3.11	3.97	4.36	4.79	4.82	4.62	4.57	4.49	4.47
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.27	1.95	2.73	3.10	2.95	3.02	2.91	2.74	2.58	2.62
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.16	1.88	2.52	2.81	2.76	2.84	2.67	2.60	2.54	2.63
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	5.45	5.55	7.81	8.73	7.61	7.61	7.48	7.26	6.28	6.13
Soybean oil, Decatur (cts./lb.)	16.36	15.85	23.52	25.06	21.88	22.23	20.78	19.87	17.86	18.59
Soybean meal, Decatur (\$/ton)	157.62	175.57	234.75	265.02	220.90	215.09	227.36	230.23	214.70	216.65
Cotton, 8-market avg. spot (cts./lb.)	53.47	64.35	57.25	51.26	61.43	63.70	64.18	67.39	69.99	68.46
Tobacco, avg. price at auction (cts./lb.)	153.96	144.32	147.93	158.59	160.43	160.43	160.43	160.31	158.59	165.83
Rice, f.o.b. mill, Houston (\$/cwt)	14.60	13.15	19.60	16.00	15.00	15.00	15.50	16.50	16.50	16.50
Inedible tallow, Chicago (cts./lb.)	9.03	13.79	16.64	16.00	14.60	14.70	15.10	14.48	13.52	14.13
Import commodities										
Coffee, N.Y. spot (\$/lb.)	2.01	1.09	1.21	1.15	1.33	1.36	1.21	.88	.78	.78
Rubber, N.Y. spot (cts./lb.)	42.87	50.65	59.20	60.08	55.23	52.07	49.50	49.16	47.21	46.13
Cocoa beans, N.Y. (\$/lb.)	.88	.87	.69	.54	.58	.54	.54	.58	.55	.49

Information contact: Mary Teymourian (202) 786-1820.

Table 28.—Indexes of Real Trade-Weighted Dollar Exchange Rates <sup>1</sup>

	1988		1989									
	Nov	Dec	Jan	Feb	Mar	Apr	May P	June P	July P	Aug P	Sept P	Oct P
	1985 = 100											
Total U.S. trade 2/	66.3	66.3	68.6	69.3	70.2	70.4	73.2	74.7	72.0	72.7	73.8	74.4
Agricultural trade												
U.S. markets	75.7	75.7	77.1	77.5	79.5	79.2	81.1	82.2	80.6	82.1	82.8	83.5
U.S. competitors	82.1	81.7	81.8	81.8	82.2	82.3	83.6	83.8	83.4	84.7	86.2	86.9
Wheat												
U.S. markets	88.1	89.1	90.8	91.3	94.0	93.2	94.4	94.4	93.8	97.6	99.0	100.0
U.S. competitors	77.0	76.1	76.2	76.1	77.2	77.5	79.2	79.9	78.6	78.2	78.4	78.6
Soybeans												
U.S. markets	67.2	67.1	69.1	69.6	70.3	70.3	72.6	74.2	72.0	72.6	73.5	74.1
U.S. competitors	75.5	74.3	71.9	70.3	72.6	71.9	71.2	70.1	76.7	77.1	80.3	81.9
Corn												
U.S. markets	67.4	67.2	68.3	68.6	70.6	70.1	72.0	73.6	72.1	73.8	74.6	75.4
U.S. competitors	74.1	73.6	73.9	73.4	73.4	74.1	76.0	76.7	75.1	75.5	76.2	76.6
Cotton												
U.S. markets	73.1	72.9	74.2	74.4	75.0	74.9	76.2	77.3	76.1	76.1	76.8	77.1
U.S. competitors	82.5	82.0	81.8	80.9	83.0	81.5	83.3	83.1	82.5	90.1	89.1	90.5

<sup>1</sup> Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. <sup>2</sup> Federal Reserve Board index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Tim Baxter, David Stallings (202) 786-1706.

Table 29.—Trade Balance

	Fiscal year 1/									Aug
	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1989
	\$ million									
Exports										
Agricultural	43,783	39,097	34,769	38,027	31,201	26,312	27,876	35,334	39,000	2,767
Nonagricultural	185,420	176,308	159,373	170,014	179,236	179,291	202,911	258,638	--	25,616
Total 2/	229,203	215,405	194,142	208,041	210,437	205,603	230,787	293,972	--	28,383
Imports										
Agricultural	17,218	15,485	16,373	18,916	19,740	20,884	20,650	21,011	21,000	1,818
Nonagricultural	237,469	233,349	230,527	297,736	313,722	342,846	367,374	409,141	--	38,619
Total 3/	254,687	248,834	246,900	316,652	333,462	363,730	388,024	430,152	--	40,437
Trade balance										
Agricultural	26,565	23,612	18,396	19,111	11,461	5,428	7,226	14,323	18,000	949
Nonagricultural	-52,049	-57,041	-71,154	-127,722	-134,486	-163,555	-164,463	-150,503	--	-13,003
Total	-25,484	-33,429	-52,758	-108,611	-123,025	-158,127	-157,237	-136,180	--	-12,054

1/ Fiscal years begin October 1 & end September 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989.

2/ Domestic exports including Department of Defense shipments (F.A.S. value). 3/ Imports for consumption (customs value). F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.



Table 30.—U.S. Agricultural Exports &amp; Imports

	Fiscal year*				Aug 1989	Fiscal year*				Aug 1989
	1986	1987	1988	1989 F		1986	1987	1988	1989 F	
	1,000 units					\$ million				
EXPORTS										
Animals, live (no.) 1/	570	275	1,082	--	21	344	331	452	--	23
Meats & preps., excl. poultry (mt)	451	548	631	2/600	81	1,012	1,300	1,797	--	199
Dairy products (mt)	480	445	388	--	80	431	491	536	500	40
Poultry meats (mt)	265	376	390	400	44	282	406	424	--	46
Fats, oils, & greases (mt)	1,355	1,220	1,362	3/1,400	93	477	417	545	--	35
Hides & skins incl. furskins	--	--	--	--	--	1,440	1,666	1,838	--	138
Cattle hides, whole (no.) 1/	25,596	24,333	23,282	--	2,076	1,131	1,254	1,457	--	112
Mink pelts (no.) 1/	2,697	2,760	2,455	--	138	65	103	88	--	14
Grains & feeds (mt)	74,358	90,211	108,905	--	8,370	9,472	9,059	12,581	4/16,300	1,241
Wheat (mt)	25,501	28,204	40,501	37,000	3,532	3,260	2,877	4,467	5/6,200	558
Wheat flour (mt)	1,094	1,305	1,046	1,300	115	203	207	171	--	26
Rice (mt)	2,382	2,454	2,173	2,400	178	648	551	731	800	58
Feed grains, incl. products (mt)	36,236	47,606	53,308	62,500	3,540	3,817	3,752	5,209	7,500	406
Feeds & fodders (mt)	8,392	10,113	11,233	6/11,000	937	1,286	1,455	1,719	--	158
Other grain products (mt)	1,015	755	908	--	104	332	285	361	--	45
Fruits, nuts, and preps. (mt)	2,003	2,146	2,409	--	189	1,766	2,050	2,368	--	192
Fruit juices incl.										
froz. (1,000 hectoliters) 1/	3,652	4,364	5,497	--	426	148	185	252	--	22
Vegetables & preps. (mt)	1,442	1,629	1,826	--	173	997	1,176	1,282	--	110
Tobacco, unmanufactured (mt)	224	224	229	200	11	1,318	1,203	1,296	1,300	58
Cotton, excl. linters (mt)	482	1,306	1,388	1,400	110	678	1,419	2,136	2,000	165
Seeds (mt)	269	305	286	--	74	367	371	415	400	42
Sugar, cane or beet (mt)	375	582	318	--	46	75	113	98	--	18
Oilseeds & products (mt)	27,583	29,725	29,471	--	883	6,271	6,308	7,700	6,800	289
Oilseeds (mt)	20,684	21,905	21,366	--	550	4,394	4,423	5,238	--	156
Soybeans (mt)	20,139	21,394	20,908	15,400	498	4,174	4,205	5,008	4,300	132
Protein meal (mt)	5,614	6,786	6,406	4,500	171	1,132	1,347	1,502	1,300	41
Vegetable oils (mt)	1,284	1,035	1,699	--	162	746	538	961	--	92
Essential oils (mt)	7	8	9	--	1	105	111	120	--	12
Other	568	565	668	--	32	1,129	1,273	1,495	--	139
Total	109,862	129,290	148,280	146,500	10,187	26,312	27,876	35,334	39,000	2,767
IMPORTS										
Animals, live (no.) 1/	1,885	1,994	2,238	--	175	637	610	729	700	52
Meats & preps., excl. poultry (mt)	1,139	1,282	1,280	--	95	2,248	2,797	2,788	--	216
Beef & veal (mt)	693	778	779	725	61	1,252	1,575	1,681	1,600	141
Pork (mt)	406	462	456	410	29	900	1,125	1,001	900	64
Dairy products (mt)	768	461	337	355	20	787	849	881	800	76
Poultry & products 1/	--	--	--	--	--	101	112	97	--	12
Fats, oils, & greases (mt)	22	21	20	--	1	17	18	19	--	1
Hides & skins, incl. furskins 1/	--	--	--	--	--	200	304	247	--	13
Wool, unmanufactured (mt)	53	60	56	--	4	160	201	292	--	18
Grains & feeds (mt)	2,299	2,336	3,050	3,300	337	670	727	868	1,000	107
Fruits, nuts, & preps., excl. juices (mt)	4,637	4,840	4,797	4,795	359	1,980	2,178	2,169	--	171
Bananas & plantains (mt)	3,042	3,106	3,030	2,950	260	744	817	820	800	70
Fruit juices (1,000 hectoliters) 1/	31,539	34,059	26,758	27,000	1,395	698	728	768	--	34
Vegetables & preps. (mt)	2,199	2,446	2,520	2,550	199	1,560	1,509	1,593	1,700	131
Tobacco, unmanufactured (mt)	208	225	217	200	18	606	634	611	500	57
Cotton, unmanufactured (mt)	41	38	36	--	1	14	7	9	--	1
Seeds (mt)	89	133	143	170	5	111	156	153	200	11
Nursery stock & cut flowers 1/	--	--	--	--	--	352	369	419	--	47
Sugar, cane or beet (mt)	1,905	1,492	1,069	--	226	654	497	368	--	94
Oilseeds & products (mt)	1,515	1,572	1,772	1,865	162	641	579	838	900	78
Oilseeds (mt)	197	165	208	--	24	69	56	71	--	11
Protein meal (mt)	138	245	253	--	43	15	30	42	--	7
Vegetable oils (mt)	1,173	1,162	1,311	--	95	555	493	725	--	60
Beverages excl. fruit										
juices (1,000 hectoliters) 1/	15,488	15,547	15,583	--	1,423	1,848	1,923	2,008	--	168
Coffee, tea, cocoa, spices (mt)	1,940	1,915	1,842	--	195	6,099	4,867	4,274	--	363
Coffee, incl. products (mt)	1,223	1,206	1,050	1,000	124	4,402	3,233	2,600	2,800	236
Cocoa beans & products (mt)	507	503	562	530	53	1,191	1,088	1,164	1,000	90
Rubber & allied gums (mt)	801	824	846	875	68	615	714	949	1,000	67
Other	--	--	--	--	--	886	871	931	--	103
Total	--	--	--	--	--	20,884	20,650	21,011	21,000	1,818

\*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. 1/ Not included in total volume. 2/ Forecasts for footnoted items 2/-6/ are based on slightly different groups of commodities. Fiscal 1988 exports of categories used in the 1989 forecasts were 2/ 561,000 m. tons. 3/ 1,347 million dollars 4/ 12,743 million. 5/ 4,638 million, i.e. includes flour. 6/ 11,095 million m. tons. F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 31.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*				Aug	Change from year* earlier				Aug
	1986	1987	1988	1989 F	1989	1986	1987	1988	1989 F	1989
	\$ million					Percent				
Western Europe	6,851	7,219	8,029	7,400	363	-5	5	11	-7	-16
European Community (EC-12)	6,435	6,787	7,513	6,900	320	-3	5	11	-8	-18
Belgium-Luxembourg	361	423	429	--	20	-23	17	1	--	22
France	431	495	565	--	28	9	15	14	--	-18
Germany, Fed. Rep.	1,001	1,266	1,306	--	54	11	26	3	--	-24
Italy	686	733	713	--	33	1	6	-3	--	32
Netherlands	2,042	1,954	2,087	--	73	6	-4	7	--	-27
United Kingdom	628	666	819	--	44	0	6	23	--	-27
Portugal	308	271	340	--	18	-39	-12	25	--	-11
Spain, incl. Canary Islands	723	658	848	--	26	-13	-9	29	--	1
Other Western Europe	415	432	516	500	43	-19	4	20	0	4
Switzerland	128	145	191	--	13	-45	13	32	--	-16
Eastern Europe	447	453	559	400	19	-16	1	23	-33	-28
German Dem. Rep.	52	66	67	--	9	-36	27	0	--	-53
Poland	42	63	167	--	3	-66	50	165	--	967
Yugoslavia	134	131	104	--	1	-2	-2	-21	--	6
Romania	112	115	93	--	6	27	3	-19	--	339
USSR	1,105	659	1,934	3,500	65	-56	-40	193	84	-24
Asia	10,494	11,990	15,928	18,800	1,493	-12	14	33	18	3
West Asia (Mideast)	1,243	1,664	1,903	2,200	215	-14	34	14	16	33
Turkey	111	117	120	--	58	-13	5	3	--	5,619
Iraq	335	528	735	900	46	-10	58	39	29	-27
Israel	255	244	334	--	5	-15	-4	37	--	-83
Saudi Arabia	335	489	464	400	36	-12	46	-5	-13	-18
South Asia	517	345	805	--	77	-14	-33	133	--	-35
Bangladesh	94	111	107	--	12	-54	18	-3	--	62
India	90	93	354	--	9	-30	3	281	--	-86
Pakistan	285	98	276	500	53	25	-66	181	67	78
China	83	235	613	1,500	178	-65	183	161	150	230
Japan	5,139	5,554	7,274	8,100	613	-9	8	31	11	-9
Southeast Asia	724	708	1,015	--	88	-14	-2	43	--	30
Indonesia	172	152	238	--	23	-16	-12	56	--	81
Philippines	269	259	345	400	34	-6	-4	33	33	22
Other East Asia	2,788	3,485	4,318	4,700	321	-11	25	24	9	-15
Taiwan	1,109	1,354	1,577	1,600	100	-17	22	16	0	-29
Korea, Rep.	1,277	1,693	2,250	2,500	173	-9	33	33	11	-12
Hong Kong	400	436	488	600	48	1	9	12	20	19
Africa	2,134	1,784	2,272	2,400	152	-16	-16	27	6	-5
North Africa	1,401	1,279	1,659	1,900	93	16	-9	30	12	-14
Morocco	159	196	193	--	9	2	23	-2	--	-30
Algeria	329	244	537	700	29	50	-26	120	30	-40
Egypt	875	761	786	1,000	50	14	-13	3	25	8
Sub-Sahara	733	505	613	500	60	-44	-31	21	-17	13
Nigeria	158	67	44	--	4	-57	-58	-35	--	26
Rep. S. Africa	70	49	85	--	8	-63	-30	74	--	-15
Latin America & Caribbean	3,598	3,765	4,401	5,100	464	-21	5	17	16	-10
Brazil	445	418	176	100	23	-20	-6	-58	-50	469
Caribbean Islands	752	829	867	--	88	-2	10	5	--	-1
Central America	334	377	413	--	41	-7	13	10	--	7
Colombia	137	115	178	--	10	-42	-16	55	--	-49
Mexico	1,114	1,215	1,726	2,400	245	-29	9	42	41	-6
Peru	108	140	174	--	9	2	30	24	--	-41
Venezuela	493	459	597	600	27	-32	-7	30	0	-52
Canada	1,466	1,776	1,973	2,200	187	-15	21	11	10	-5
Oceania	216	230	238	300	24	6	6	3	50	19
Total	26,312	27,876	35,334	40,000	2,767	-16	6	27	13	-4
Developed countries	13,957	15,031	17,883	18,400	1,195	-8	8	19	3	-12
Less developed countries	10,720	11,498	14,346	16,100	1,311	-15	7	25	13	-4
Centrally planned countries	1,636	1,347	3,106	5,500	262	-50	-18	131	77	58

\*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. F = forecast.

-- = not available.

Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 786-1822.



# Farm Income

Table 32.—Farm Income Statistics

	Calendar year										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
	\$ billion										
1. Farm receipts	133.8	142.0	144.1	147.1	141.1	146.8	149.1	140.6	145.3	157.2	158 to 168
Crops (incl. net CCC loans)	62.3	71.7	72.5	72.3	67.1	69.5	74.3	64.0	63.8	72.6	75 to 79
Livestock	69.2	68.0	69.2	70.3	69.4	73.0	69.8	71.5	75.7	78.9	78 to 82
Farm related 1/	2.2	2.3	2.5	4.5	4.5	4.4	5.0	5.1	5.8	5.7	5 to 7
2. Direct Government payments	1.4	1.3	1.9	3.5	9.3	8.4	7.7	11.8	16.7	14.5	9 to 12
Cash payments	1.4	1.3	1.9	3.5	4.1	4.0	7.6	8.1	6.6	8.0	8 to 10
Value of PIK commodities	0.0	0.0	0.0	0.0	5.2	4.5	0.1	3.7	10.1	7.0	1 to 2
3. Total gross farm income (4+5+6) 2/	150.7	149.3	166.4	163.5	153.1	174.9	166.4	160.4	171.6	177.6	187 to 192
4. Gross cash income (1+2)	135.1	143.3	146.0	150.6	150.4	155.2	156.9	152.5	162.0	171.6	170 to 175
5. Nonmoney income 3/	10.6	12.3	13.8	14.3	13.5	13.4	11.8	10.6	10.0	10.3	8 to 10
6. Value of inventory change	5.0	-6.3	6.5	-1.4	-10.9	6.3	-2.4	-2.7	-1.4	-4.3	4 to 7
7. Cash expenses 4/	101.7	109.1	113.2	112.8	113.5	116.6	110.2	100.7	104.3	111.7	116 to 120
8. Total expenses	123.3	133.1	139.4	140.0	140.4	142.7	134.0	122.4	124.5	132.0	136 to 140
9. Net cash income (4-7)	33.4	34.2	32.8	37.8	36.9	38.6	46.7	51.8	57.7	59.9	52 to 57
10. Net farm income (3-8)	27.4	16.1	26.9	23.5	12.7	32.2	32.4	38.0	47.1	45.7	48 to 53
Deflated (1982\$)	34.9	18.8	28.6	23.5	12.2	29.9	29.2	33.4	40.0	37.6	39 to 43
11. Off-farm income	33.8	34.7	35.8	36.4	37.0	38.9	42.6	44.6	46.8	51.7	51 to 55
12. Loan changes 5/:											
Real estate	13.0	9.9	9.1	3.8	2.3	-1.1-	-6.0	-9.2	-7.7	-4.0	0 to 3
Non-real estate	11.2	5.3	6.5	3.4	0.9	-0.8	-9.6	-10.7	-4.9	1.0	0 to 2
14. Rental income plus monetary change	6.3	6.1	6.4	6.3	5.3	8.9	8.8	7.8	6.8	8.0	7 to 9
15. Capital expenditures 5/	20.1	18.0	16.8	13.3	12.7	12.5	9.2	8.5	9.8	10.2	10 to 12
16. Net cash flow (9+12+13+14-15)	43.8	37.6	37.8	38.1	32.7	33.1	30.7	31.2	42.1	52.7	48 to 58

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. 5/ Excludes farm households. Totals may not add because of rounding. F = forecast.

Information contact: Diane Bertelsen (202) 786-1808.

Table 33.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
	\$ billion										
<b>Assets</b>											
Real estate	706.1	782.4	784.7	748.8	738.7	637.7	555.9	507.3	518.5	546.0	580 to 590
Non-real estate	201.6	213.2	212.0	212.2	205.6	209.0	190.5	182.2	187.8	202.5	196 to 202
Livestock & poultry	61.4	60.6	53.5	53.0	49.7	49.6	46.3	47.6	57.9	65.7	65 to 69
Machinery & motor vehicles	85.8	93.1	101.4	102.0	100.8	96.9	87.6	80.3	73.9	74.7	74 to 78
Crops stored 2/	29.2	33.0	29.1	27.7	23.9	29.7	23.6	19.1	20.9	26.2	18 to 22
Financial assets	25.3	26.5	28.0	29.5	31.3	32.8	33.0	35.2	35.2	35.9	35 to 37
Total farm assets	907.7	995.6	996.7	961.0	944.3	846.7	746.4	689.5	706.3	748.5	780 to 790
<b>Liabilities</b>											
Real estate debt 3/	79.7	89.6	98.7	102.5	104.8	103.6	97.6	88.6	81.1	76.7	75 to 79
Non-real estate debt 4/	71.8	77.1	83.6	87.0	87.9	87.1	77.5	66.6	62.0	61.7	60 to 64
Total farm debt	151.6	166.8	182.3	189.5	192.7	190.7	175.1	155.1	143.1	138.4	134 to 142
Total farm equity	756.1	828.9	814.4	771.5	751.6	656.0	571.3	534.4	563.3	610.0	643 to 653
	Percent										
<b>Selected ratios</b>											
Debt-to-assets	16.7	16.8	18.3	19.7	20.4	22.5	23.5	22.5	20.3	18.5	17 to 18
Debt-to-equity	20.1	20.1	22.4	24.6	25.6	29.1	30.6	29.0	25.4	22.7	21 to 22
Debt-to-net cash income 454	488	488	556	497	523	493	375	299	248	231	243 to 253

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 786-1798.

Table 34.—Cash Receipts from Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1987	1988	July 1989	Aug 1989	1987	1988	July 1989	Aug 1989	1987	1988	July 1989	Aug 1989
	\$ million 2/											
<b>North Atlantic</b>												
Maine	228	216	18	18	184	188	10	17	412	404	28	35
New Hampshire	67	60	5	5	72	77	5	8	139	137	10	13
Vermont	377	352	28	31	45	53	6	2	422	405	35	33
Massachusetts	121	105	9	9	259	297	17	26	379	402	26	34
Rhode Island	13	13	1	1	64	65	3	2	77	78	4	3
Connecticut	191	180	15	15	194	202	15	13	385	382	30	28
New York	1,809	1,781	145	158	800	824	64	96	2,610	2,605	209	254
New Jersey	195	192	16	16	438	450	60	46	633	642	76	63
Pennsylvania	2,310	2,348	204	203	904	935	72	76	3,213	3,284	275	279
<b>North Central</b>												
Ohio	1,616	1,604	134	135	1,862	2,025	219	111	3,478	3,629	353	246
Indiana	1,874	1,749	145	149	1,832	2,367	271	134	3,706	4,117	415	283
Illinois	2,249	2,243	179	181	3,850	4,218	219	172	6,099	6,461	398	353
Michigan	1,282	1,206	106	103	1,311	1,464	182	104	2,594	2,670	288	206
Wisconsin	4,216	4,281	369	369	799	767	66	84	5,015	5,048	435	453
Minnesota	3,561	3,364	280	298	2,270	2,743	222	205	5,831	6,107	502	503
Iowa	5,202	5,045	391	392	3,563	4,029	291	215	8,765	9,074	682	608
Missouri	2,102	2,011	148	171	1,586	1,814	78	71	3,687	3,826	226	242
North Dakota	762	849	36	68	1,601	1,574	120	156	2,363	2,423	156	225
South Dakota	1,907	1,965	117	161	820	945	79	81	2,726	2,911	196	243
Nebraska	4,857	5,336	362	449	1,967	2,643	261	155	6,824	7,979	623	604
Kansas	3,919	4,265	328	375	1,963	2,329	232	147	5,882	6,594	559	521
<b>Southern</b>												
Delaware	370	444	46	36	116	149	9	20	487	592	55	56
Maryland	734	768	68	63	405	459	49	27	1,140	1,226	117	90
Virginia	1,275	1,294	100	101	484	592	58	49	1,759	1,886	158	150
West Virginia	174	179	14	15	60	70	6	8	234	248	20	23
North Carolina	2,111	2,179	196	187	1,658	1,994	71	376	3,768	4,173	267	563
South Carolina	450	488	36	41	479	590	43	80	929	1,078	78	122
Georgia	1,825	2,011	187	139	1,299	1,553	85	130	3,124	3,544	271	269
Florida	1,086	1,114	88	118	4,368	4,697	175	155	5,454	5,811	263	273
Kentucky	1,507	1,538	323	84	940	992	50	23	2,448	2,530	373	106
Tennessee	1,110	1,080	80	83	874	965	41	34	1,984	2,046	120	118
Alabama	1,521	1,695	154	151	633	706	36	23	2,154	2,400	491	173
Mississippi	1,042	1,176	111	107	945	1,164	20	19	1,987	2,341	131	127
Arkansas	2,083	2,278	219	204	1,112	1,696	60	51	3,195	3,974	279	255
Louisiana	511	587	55	57	965	1,299	22	46	1,476	1,885	78	104
Oklahoma	2,066	2,284	168	199	811	1,127	132	128	2,877	3,410	299	327
Texas	6,092	6,498	553	630	2,907	3,783	289	285	8,998	10,281	841	915
<b>Western</b>												
Montana	747	816	25	53	608	570	48	82	1,355	1,386	73	135
Idaho	924	1,033	77	95	1,164	1,258	70	194	2,089	2,291	148	289
Wyoming	528	575	20	31	127	156	9	18	655	730	29	49
Colorado	2,323	2,655	209	221	885	1,037	107	95	3,207	3,692	316	317
New Mexico	817	910	46	54	351	362	49	44	1,168	1,272	95	98
Arizona	773	793	55	52	987	1,167	55	28	1,760	1,959	110	80
Utah	466	537	38	44	134	150	15	14	600	687	53	57
Nevada	164	150	10	14	69	79	8	9	232	229	17	24
Washington	981	1,141	93	103	1,880	2,146	133	266	2,862	3,287	225	369
Oregon	655	669	54	70	1,236	1,427	206	167	1,890	2,096	261	238
California	4,426	4,704	407	466	11,382	11,894	921	796	15,808	16,598	1,328	1,262
Alaska	11	10	1	1	19	20	2	2	30	30	3	3
Hawaii	88	89	7	7	473	479	41	41	560	568	48	48
<b>United States</b>	<b>75,717</b>	<b>78,862</b>	<b>6,473</b>	<b>6,734</b>	<b>63,751</b>	<b>72,569</b>	<b>5,298</b>	<b>5,134</b>	<b>139,468</b>	<b>151,431</b>	<b>11,771</b>	<b>11,869</b>

1/ Sales of farm products include receipts from commodities placed under CCC loans minus value of redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 786-1804.



Table 35.—Cash Receipts from Farming

	Annual						1988	1989				
	1983	1984	1985	1986	1987	1988	Aug	Apr	May	June	July	Aug
	\$ million											
Farm marketings & CCC loans*	136,567	142,439	144,135	135,539	139,468	151,431	12,130	11,050	11,448	11,970	11,771	11,869
Livestock & products	69,438	72,968	69,845	71,534	75,717	78,862	6,592	6,649	6,901	6,553	6,473	6,734
Meat animals	38,893	40,832	38,589	39,122	44,276	45,975	3,728	3,711	3,802	3,545	3,281	3,859
Dairy products	18,763	17,944	18,063	17,753	17,710	17,668	1,436	1,559	1,612	1,508	1,537	1,569
Poultry & eggs	9,981	12,223	11,211	12,661	11,480	12,864	1,264	1,221	1,326	1,330	1,271	1,146
Other	1,801	1,969	1,982	1,997	2,252	2,354	164	158	161	170	383	161
Crops	67,129	69,471	74,290	64,005	63,751	72,569	5,537	4,401	4,547	5,417	5,298	5,134
Food grains	9,713	9,740	8,993	5,638	5,581	7,700	830	312	434	1,368	1,315	975
Feed crops	15,535	15,668	22,520	17,161	13,102	15,291	1,470	868	1,014	1,430	1,255	1,155
Cotton (lint & seed)	3,705	3,674	3,687	3,605	4,087	4,668	89	136	98	53	120	91
Tobacco	2,752	2,813	2,722	1,918	1,827	2,039	413	21	0	0	19	510
Oil-bearing crops	13,546	13,641	12,474	10,571	11,159	13,699	580	515	546	488	374	297
Vegetables & melons	8,459	9,138	8,558	8,826	9,718	9,819	876	956	1,062	812	667	877
Fruits & tree nuts	6,056	6,733	6,957	7,246	8,257	8,877	674	448	525	683	932	620
Other	7,365	8,065	8,381	9,041	10,020	10,476	607	1,145	868	580	617	609
Government payments	9,295	8,430	7,704	11,813	16,747	14,480	49	902	816	235	204	93
Total	145,862	150,869	151,839	147,352	156,215	165,911	12,179	11,952	12,264	12,205	11,975	11,962

\*Receipts from loans represent value of commodities placed under CCC loans minus value of redemptions during the month.

Information contact: Roger Strickland (202) 786-1804.

Table 36.—Farm Production Expenses

	Calendar year									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F
	\$ million									
Feed	20,971	20,855	18,592	21,725	19,852	18,015	16,179	16,898	20,962	20,000 to 24,000
Livestock	10,670	8,999	9,684	8,814	9,498	8,958	9,744	11,845	12,812	11,000 to 14,000
Seed	3,220	3,428	3,172	2,993	3,448	3,350	2,984	3,009	3,138	3,000 to 4,000
Farm-origin inputs	34,861	33,282	31,448	33,532	32,798	30,323	28,907	31,752	36,913	36,000 to 40,000
Fertilizer	9,491	9,409	8,018	7,067	7,429	7,258	5,787	5,610	6,400	6,000 to 8,000
Fuels & oils	8,879	8,570	7,888	7,503	7,143	6,584	4,790	4,442	4,544	4,000 to 6,000
Electricity	1,526	1,747	2,041	2,146	2,166	2,150	1,942	2,393	2,572	2,000 to 3,000
Pesticides	3,539	4,201	4,282	4,154	4,767	4,994	4,484	4,588	4,716	5,000 to 6,000
Manufactured inputs	22,435	23,927	22,229	20,870	21,505	20,986	17,003	17,033	18,233	18,000 to 22,000
Short-term interest	8,717	10,722	11,349	10,615	10,396	8,821	7,795	7,305	7,287	7,000 to 9,000
Real estate interest 1/	7,544	9,142	10,481	10,815	10,733	9,878	9,131	8,187	7,885	7,000 to 9,000
Total interest charges	16,261	19,864	21,830	21,430	21,129	18,699	16,926	15,492	15,172	15,000 to 17,000
Repair & maintenance 1/ 2/	7,075	7,021	6,428	6,529	6,416	6,370	6,426	6,546	6,858	7,000 to 8,000
Contract & hired labor	9,293	8,931	10,075	9,725	9,729	9,799	9,890	10,821	11,202	11,000 to 13,000
Machine hire & custom work	1,823	1,984	2,025	1,896	2,170	2,184	1,810	1,956	2,171	2,000 to 3,000
Marketing, storage, & transportation	3,070	3,523	4,301	3,904	4,012	4,127	3,652	3,823	3,279	4,000 to 5,000
Misc. operating expenses 1/	6,881	6,909	7,262	9,089	9,106	8,232	7,993	8,306	8,809	6,000 to 8,000
Other operating expenses	28,142	28,368	30,089	31,143	31,433	30,712	29,771	31,452	32,328	32,000 to 36,000
Capital consumption 1/	21,474	23,573	24,287	23,873	23,105	20,847	18,918	17,364	17,422	17,000 to 18,000
Taxes 1/	3,891	4,246	4,036	4,469	4,059	4,231	4,125	4,345	4,378	4,000 to 5,000
Net rent to nonoperator landlord	6,075	6,184	6,059	5,060	8,640	8,158	6,737	7,060	7,527	7,000 to 8,000
Other overhead expenses	31,440	34,003	34,381	33,402	35,804	33,236	29,780	28,769	29,326	28,000 to 31,000
Total production expenses	133,139	139,444	139,980	140,377	142,669	133,956	122,387	124,498	131,963	136,000 to 140,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases & dairy assessments. Totals may not add because of rounding. F = forecast.

Information contacts: Chris McGath (202) 786-1804, Diane Bertelsen (202) 786-1808.

Table 37.—CCC Net Outlays by Commodity &amp; Function

COMMODITY/PROGRAM	Fiscal year										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 E	1990 E
	\$ million										
Feed grains	1,286	-533	5,397	6,815	-758	5,211	12,211	13,967	9,053	4,169	7,067
Wheat	879	1,543	2,238	3,419	2,536	4,691	3,440	2,836	678	84	197
Rice	-76	24	164	664	333	990	947	906	128	692	561
Upland cotton	64	336	1,190	1,363	244	1,553	2,142	1,786	666	1,723	298
Tobacco	-88	-51	103	880	346	455	253	-346	-453	-481	-201
Dairy	1,011	1,894	2,182	2,528	1,502	2,085	2,337	1,166	1,295	658	686
Soybeans	116	87	169	288	-585	711	1,597	-476	-1,676	-19	168
Peanuts	28	28	12	-6	1	12	32	8	7	6	4
Sugar	-405	-121	-5	49	10	184	214	-65	-246	0	0
Money	9	8	27	48	90	81	89	73	100	66	56
Wool	35	42	54	94	132	109	123	152	1/ 5	95	110
Operating expense 2/	157	159	294	328	362	346	457	535	614	623	635
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	206	347
Export programs 3/	-669	-940	65	398	743	134	102	276	200	122	106
Other	-113	1,340	-225	-1,542	1,295	-314	486	371	1,695	5,540	1,314
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,484	11,348
FUNCTION											
Price-support loans (net)	-66	174	7,015	8,438	-27	6,272	13,628	12,199	4,579	-138	1,500
Direct payments											
Deficiency	79	0	1,185	2,780	612	6,302	6,166	4,833	3,971	5,559	6,024
Diversion	56	0	0	705	1,504	1,525	64	382	8	-1	0
Dairy termination	0	0	0	0	0	0	489	587	260	110	211
Other	25	0	0	0	0	0	27	60	0	45	0
Disaster	258	1,030	306	115	1	0	0	0	6	0	0
Total direct payments	418	1,030	1,491	3,600	2,117	7,827	6,746	5,862	4,245	5,713	6,235
1988 crop disaster	0	0	0	0	0	0	0	0	0	3,750	0
Emergency livestock/											
forage assistance	23	329	16	0	0	0	0	0	31	608	201
Purchases (net)	1,681	1,602	2,031	2,540	1,470	1,331	1,670	-479	-1,131	390	60
Producer storage											
payments	254	32	679	964	268	329	485	832	658	343	141
Processing, storage,											
& transportation	259	323	355	665	639	657	1,013	1,659	1,113	602	780
Operating expense 2/	157	159	294	328	362	346	457	535	614	623	635
Interest expenditure	518	220	-13	3,525	1,064	1,435	1,411	1,219	395	206	347
Export programs 3/	-669	-940	65	398	743	134	102	276	200	122	106
Other	177	1,107	-281	-1,607	679	-648	329	305	1,757	1,265	1,343
Total	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	13,484	11,348

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Does not include CCC transfers to general sales manager. 3/ Includes export guarantee program, direct export credit program, and CCC transfers to the general sales manager. E = Estimated in the fiscal 1990 mid-session review. Fiscal 1990 estimated outlays do not incorporate the impact of the Drought Assistance Act of 1989. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 447-5148.



## Food Expenditures

Table 38.—Food Expenditure Estimates

	Annual			1989			1989 year-to-date		
	1986 R	1987 R	1988 R	July	Aug P	Sept P	July P	Aug P	Sept P
\$ billion									
Sales 1/									
Off-premise use 2/	237.1	245.5	257.8	23.9	23.7	23.2	157.4	181.1	204.3
Meals and snacks 3/	158.5	174.8	187.4	17.4	17.6	16.4	112.8	130.5	146.8
1988 \$ billion									
Sales 1/									
Off-premise use 2/	257.7	255.9	257.8	22.3	22.2	21.6	148.8	171.0	192.6
Meals and snacks 3/	171.6	181.9	187.4	16.8	16.8	15.5	108.8	125.6	141.1
Percent change from year earlier (\$ bil.)									
Sales 1/									
Off-premise use 2/	3.3	3.6	5.0	6.1	7.3	7.0	7.2	7.2	7.2
Meals and snacks 3/	6.9	10.2	7.2	3.5	3.8	2.4	6.1	5.8	5.4
Percent change from year earlier (1988 \$ bil.)									
Sales 1/									
Off-premise use 2/	.4	-.7	-.7	-.2	1.5	1.9	0	1.2	1.4
Meals and snacks 3/	2.9	6.0	3.0	-1.1	-.8	-2.2	1.5	1.2	.8

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations and home production. 3/ Excludes donations, child nutrition subsidies, and meals furnished to employees, patients, and inmates. R = revised. P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food, not alcoholic beverages and pet food, which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced and consumed on farms and food furnished to employees; (4) this series includes all sales of meals and snacks. PCE includes only purchases using personal funds, excluding business travel and entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr.-Econ. Rpt. No. 575, Aug. 1987.

Information contact: Alden Manchester (202) 786-1880.

## Transportation

Table 39.—Rail Rates; Grain & Fruit/Vegetable Shipments

	Annual			1988						
	1986	1987	1988	Sept	Apr	May	June	July	Aug	Sept
Rail freight rate index 1/ (Dec. 1984=100)										
All products	100.7	100.1	104.8	105.4	106.0	106.0	106.4 P	106.6 P	107.1 P	106.7 P
Farm products	99.6	99.3	105.6	108.7	108.6	108.6	107.7 P	108.3 P	108.2 P	108.2 P
Grain	98.9	98.7	105.4	109.3	108.8	108.8	107.8 P	108.5 P	108.4 P	108.4 P
Food products	99.9	98.6	103.2	103.7	103.5	103.5	103.8 P	104.0 P	104.3 P	104.1 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	24.4	29.0	30.7	29.0	30.1 P	25.9 P	27.3 P	25.0 P	25.9 P	24.4 P
Fresh fruit & vegetable shipments										
Piggy back (1,000 cwt) 3/ 4/	629	588	532	496	502	763	709	603	454	462
Rail (1,000 cwt) 3/ 4/	563	630	609	567	571	683	900	521	215	415
Truck (1,000 cwt) 3/ 4/	9,031	9,137	9,687	8,738	10,293	11,301	12,277	9,762	8,863	8,281
Cost of operating trucks										
hauling produce 5/										
Owner operator (cts./mile)	113.1	116.3	118.7	118.5	124.1	123.5	123.4	123.4	123.4	124.3
Fleet operation (cts./mile)	113.6	116.5	118.4	118.6	123.1	122.6	122.7	122.9	122.6	123.4

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Weekly average; from Agricultural Marketing Service, USDA. 4/ Preliminary data for 1988 & 1989. 5/ Office of Transportation, USDA. P = preliminary.

Information contact: T.Q. Hutchinson (202) 786-1840.

# Indicators of Farm Productivity

Table 40.—Indexes of Farm Production, Input Use, & Productivity<sup>1</sup>

	1980	1981	1982	1983	1984	1985	1986	1987	1988 2/	1989 2/
1977=100										
Farm output	104	118	116	96	112	118	111	110	101	109
All livestock products 3/	108	109	107	109	107	110	110	113	115	116
Meat animals	107	106	101	104	101	102	100	102	104	104
Dairy products	105	108	110	114	110	117	116	116	116	118
Poultry & eggs	115	119	119	120	123	128	133	144	150	153
All crops 4/	101	117	117	88	111	118	109	108	92	103
Feed grains	97	121	122	67	116	134	123	105	73	106
Hay & forage	98	106	109	100	107	106	106	103	90	99
Food grains	121	144	138	117	129	121	106	107	98	108
Sugar crops	97	107	96	93	95	97	106	112	107	110
Cotton	79	109	85	55	91	94	69	103	108	85
Tobacco	93	108	104	75	90	81	63	62	71	78
Oil crops	99	114	121	91	106	117	110	107	88	105
Cropland used for crops	101	102	101	88	99	98	94	88	87	--
Crop production per acre	100	115	116	100	112	120	116	122	106	--
Farm input 5/	103	102	99	97	95	92	87	86	--	--
Farm real estate	103	104	102	101	97	95	93	92	--	--
Mechanical power & machinery	101	98	92	88	84	80	75	72	--	--
Agricultural chemicals	123	129	118	105	121	123	110	111	--	--
Feed, seed, & livestock purchases	114	108	108	110	106	106	103	108	--	--
Farm output per unit of input	101	116	117	99	119	128	127	127	--	--
Output per hour of labor										
Farm 6/	109	123	125	99	121	139	139	142	131	--
Nonfarm 7/	99	100	99	102	105	106	108	109	111	--

1/ For historical data & indexes, see Economic Indicators of the Farm Sector: Production & Efficiency Statistics, 1986, ECIFS 5-6. 2/ Preliminary indexes for 1988 based on Crop Production: 1988 Summary, released in January 1989, & unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. -- = not available.

Information contact: Jim Hauver (202) 786-1459.



# Food Supply and Use

Table 41.—Per Capita Consumption of Major Food Commodities<sup>1</sup>

	1980	1981	1982	1983	1984	1985	1986	1987	1988 2/
	Pounds								
Meats (boneless, trimmed weight) 3/	123.4	121.9	116.7	120.3	119.9	120.9	118.3	113.3	115.1
Beef	72.1	72.7	72.4	73.8	73.6	74.3	74.1	69.2	68.2
Veal	1.3	1.3	1.4	1.4	1.5	1.5	1.6	1.3	1.1
Lamb & mutton	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0	1.0
Pork	49.1	46.8	41.9	44.0	43.7	44.1	41.6	41.8	44.7
Fish (edible weight)	12.8	12.9	12.3	13.1	13.7	14.4	14.7	15.4	15.0
Canned	4.5	4.8	4.3	4.8	4.9	5.1	5.4	5.1	5.1
Fresh & frozen	8.0	7.8	7.7	8.0	8.3	9.0	9.0	10.0	9.6
Cured	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Poultry (boneless weight)	42.8	44.0	45.0	45.9	47.2	49.4	51.1	55.3	57.2
Chicken	34.5	35.5	36.5	37.0	38.2	39.8	40.6	43.4	44.6
Turkey	8.3	8.5	8.5	8.9	9.0	9.5	10.5	11.9	12.6
Eggs	34.4	33.5	33.5	33.0	32.9	32.2	31.7	31.6	30.9
Dairy products									
Cheese (excluding cottage)	17.5	18.2	19.9	20.5	21.4	22.5	23.0	24.0	23.6
Cottage cheese	4.5	4.3	4.2	4.1	4.1	4.1	4.1	3.9	3.9
Fluid whole milk 4/	146.4	139.6	133.2	130.0	126.5	122.9	116.0	111.4	106.1
Fluid lowfat milk 5/	79.4	82.2	83.0	85.4	88.6	93.4	98.2	100.1	101.6
Fluid skim milk	11.6	11.3	10.6	10.6	11.5	12.6	13.4	14.0	16.2
Fluid cream 6/	3.4	3.4	3.4	3.7	4.0	4.4	4.7	4.6	4.7
Yogurt	2.6	2.5	2.6	3.2	3.7	4.1	4.4	4.5	4.6
Ice cream (product weight)	17.5	17.4	17.6	18.0	18.1	18.1	18.4	18.3	17.2
Ice milk	7.1	7.0	6.6	6.9	7.0	6.9	7.2	7.4	7.9
Fats & oils									
Butter	4.5	4.2	4.3	4.9	4.9	4.9	4.6	4.6	4.5
Margarine	11.3	11.1	11.0	10.4	10.4	10.8	11.4	10.5	10.3
Shortening	18.2	18.5	18.6	18.5	21.2	22.8	22.0	21.3	21.4
Lard (direct use)	2.6	2.5	2.5	2.1	2.1	1.8	1.7	1.8	1.7
Edible tallow (direct use)	1.1	1.0	1.3	2.1	1.7	1.9	1.8	1.0	0.8
Salad & cooking oils	21.2	21.8	21.8	23.5	19.8	23.5	24.1	25.2	25.7
Selected fresh fruits 3/	86.8	83.8	83.9	88.8	88.2	86.7	92.5	97.8	93.4
Citrus	27.9	24.1	23.9	28.3	23.2	22.6	25.8	25.5	25.6
Apples	18.5	16.5	17.0	17.7	17.9	16.8	17.5	20.4	18.1
Other noncitrus	40.5	43.1	43.0	42.7	47.1	47.3	49.2	51.8	49.7
Canned fruit 7/	10.2	9.1	9.4	8.2	8.3	8.4	8.7	8.8	8.8
Frozen fruit	3.1	2.9	2.9	2.9	3.0	3.3	3.6	3.9	3.8
Dried fruit	2.3	2.5	2.8	2.9	3.0	2.7	3.0	2.7	2.9
Selected fresh vegetables 8/	72.6	71.2	75.0	74.6	79.1	79.2	84.6	89.0	89.8
Selected vegetables for processing 3/ 9/	105.0	100.3	98.5	100.2	108.7	104.7	103.4	103.7	100.7
Tomatoes for processing 9/ 10/	63.6	59.3	60.1	60.8	68.4	63.1	63.4	64.6	61.0
Cucumbers for pickling 9/	5.6	5.7	5.7	5.8	5.8	5.8	5.3	5.1	5.2
Other vegetables for canning 9/ 11	21.4	20.7	19.2	19.0	17.0	18.7	19.0	17.3	16.6
Vegetables for freezing 9/ 12/	14.4	14.7	13.6	14.6	17.5	17.1	15.8	16.7	17.9
White potatoes									
Fresh	49.0	43.8	44.8	47.9	46.8	44.7	47.6	46.5	52.4
Frozen	18.5	18.9	19.5	19.4	20.2	22.0	23.0	22.8	21.9
Canned	1.2	1.1	1.2	1.2	1.1	1.2	1.1	1.1	1.1
Dehydrated	1.3	1.5	1.4	1.4	1.4	1.6	1.5	1.5	1.4
Chips & shoestrings	4.1	4.1	4.2	4.4	4.4	4.3	4.5	4.3	4.2
Sweetpotatoes 9/	4.5	4.8	5.5	4.6	5.0	5.4	4.5	4.5	4.4
Grains									
Wheat flour 13/	116.8	115.8	116.7	117.4	118.1	123.3	123.5	127.1	127.5
Rice	9.4	11.0	11.8	9.7	8.6	9.1	11.6	13.4	14.3
Pasta 14/	10.3	10.3	10.3	10.6	11.0	11.3	11.6	11.9	12.2
Breakfast cereals	12.9	13.0	13.1	13.4	14.0	14.4	14.8	15.2	--
Caloric sweeteners 15/ 16/	123.9	124.9	127.8	130.4	129.7	132.8	133.5	132.8	133.9
Sugar (refined) 17/	83.6	79.4	73.6	71.0	67.6	63.4	60.8	62.4	62.4
Corn sweeteners (dry weight) 15/ 18/	39.1	43.5	48.2	52.6	58.8	65.6	67.5	69.0	70.1
Low-calorie sweeteners 19/	7.7	8.2	9.5	12.9	15.8	18.1	18.5	19.0	--
Other									
Coffee	7.7	7.7	7.6	7.6	7.5	7.6	7.6	7.6	7.6
Cocoa (chocolate liquor equiv.)	2.7	2.9	3.0	3.2	3.4	3.7	3.8	3.9	4.0
Peanuts (shelled)	4.8	5.5	5.9	5.9	6.0	6.3	6.4	6.3	6.8
Dry edible beans, peas, & lentils 9/	5.8	5.8	6.9	7.2	5.5	7.4	7.1	8.3	--
Soft drinks (gal.)	27.1	27.1	26.9	26.9	27.2	30.4	31.9	31.6	31.3
Citrus juice (gal.)	5.1	4.8	5.1	5.6	4.8	5.2	5.6	5.3	5.3

1/ Quantity in pounds, retail weight unless otherwise stated. Data on calendar year basis except fresh citrus fruits, apples, peanuts, potatoes, sweetpotatoes, & rice, which are on a crop-year basis. 2/ Preliminary. 3/ Total may not add because of rounding. 4/ Plain & flavored. 5/ 1% and 2%, buttermilk, and flavored drinks. 6/ Heavy cream, light cream, & half & half. 7/ Excludes apples, applesauce, cranberries, pineapple, & citrus sections. 8/ Includes asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, onions, and tomatoes. 9/ Farm weight. 10/ Used in such processed products as ketchup, canned tomatoes, tomato paste, & tomato puree. 11/ Includes asparagus, carrots, green peas, snap beans, & sweet corn. 12/ Includes asparagus, broccoli, carrots, cauliflower, green peas, snap beans, and sweet corn. 13/ White, whole wheat, semolina, & durum flour. 14/ Revised. 15/ Dry weight equivalent. 16/ Includes edible syrups & honey. 17/ Beginning 1982, includes small amount of refined sugar contained in imported blends & mixtures, including sucrose-dextrose blends, sugar-sweetened tea mixes, & flavored syrups in consumer size containers. 18/ High fructose, glucose, & dextrose. 19/ Sugar sweetness equivalent. Assumes saccharin is 300 times as sweet as sugar; & aspartame, 200 times as sweet as sugar. -- = not available.

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